

THE ECHINODERM NEWSLETTER

Number 26. 2001

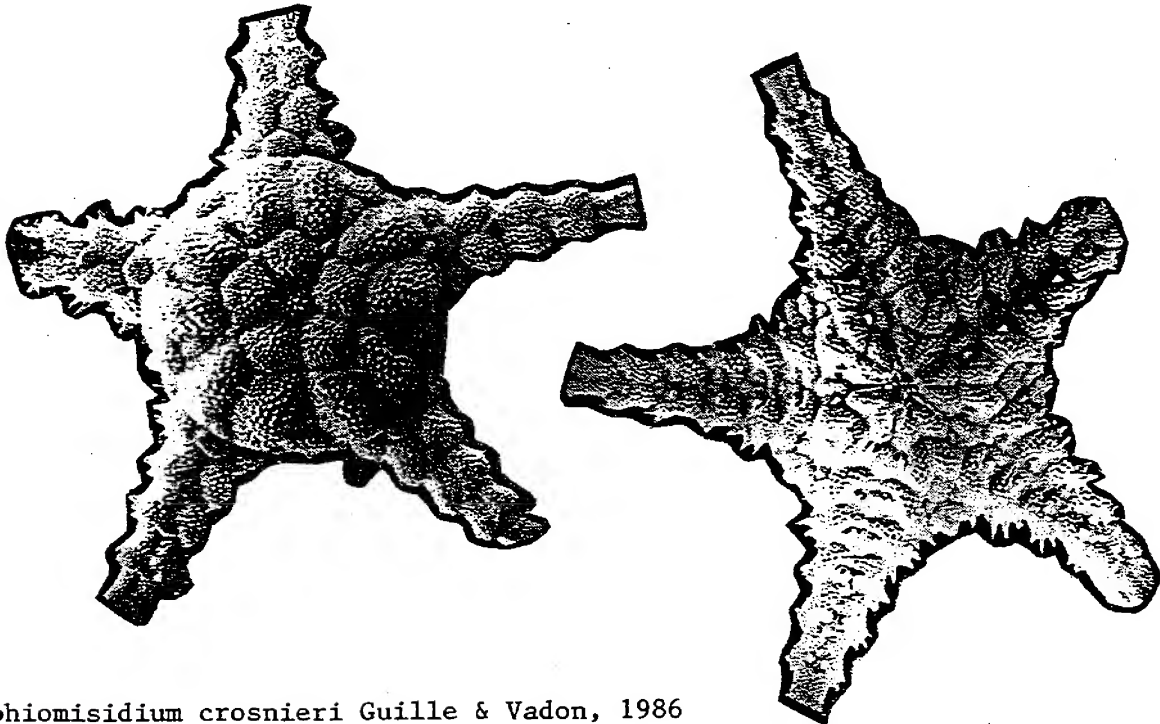
Editor: Cynthia Ahearn
Smithsonian Institution
National Museum of Natural History
Room W-318, Mail Stop 163
Washington D.C. 20560-0163 U.S.A.

**** E-MAIL **** ahearn.cynthia@nmnh.si.edu ****

Distributed by: David Pawson
Smithsonian Institution
National Museum of Natural History
Room W-323, Mail Stop 163
Washington D.C. 20560-0163 U.S.A.

The newsletter contains information concerning meetings and conferences, publications of interest to echinoderm biologists, titles of theses on echinoderms, and research interests, and addresses of echinoderm biologists. Individuals who desire to receive the newsletter should send their name, address and research interests to the editor.

The newsletter is not intended to be a part of the scientific literature and should not be cited, abstracted, or reprinted as a published document.



Ophiomisidium crosnieri Guille & Vadon, 1986

TABLE OF CONTENTS

Echinoderm Specialists Addresses; (p-); Fax (f-); e-mail numbers.....	3
Echinoderm Specialists 'Keyword' List.....	48
Current Research.....	57
Theses and Dissertations.....	89
Papers Presented at Meetings (by country or region)	
Australia.....	93
Cuba.....	93
Europe.....	93
Indonesia.....	95
India.....	95
Mexico.....	95
New Zealand.....	96
Pakistan.....	96
Philippines.....	97
Russia.....	97
South America.....	97
United States.....	98
Papers Presented at Meetings (by conference)	
9th International Conference on Invertebrate Reproduction And Development, Rhodes University.....	99
Fourth North American Echinoderm Conference.....	100
Annual Meeting of the Society for Integrative & Comparative Biology.....	104
Meeting of the World Aquaculture Society.....	106
6th ECE Sixth European Conference on Echinoderms.....	107
The Echinoid Website (Andrew Smith).....	116

Echinoderm Web Pages.....	117
Information Requests.....	124
Announcements	
11th International Echinoderm Conference Munich 2003.....	126
The 1. Arbeitstreffen deutschsprachiger Echinodermenforscher.....	127
Press Release - Sea Cucumber Research.....	127
Echinoderm Studies, M. Jangoux & J.M. Lawrence (eds).....	129
Monographie sur les Oursins du Corallien des Ardennes, Alain Vadet...130	
Echinoderms of the Philippines, Sabine Schoppe.....	131
Looking for good PhD students, Florence Thomas.....	131
D.B.James Reprints Available.....	132
On-Line Publication, Thomas Brey.....	132
Seastars of British Columbia, Southeast Alaska and Puget Sound, Phil Lambert.....	133
Book Review, Bryan Nichols.....	134
The Marine Fauna of New Zealand: Echinodermata: Asteroidea (Seastars), Order Paxillosida, Order Notomyotida, H.E.S.Clark And D.G.McKnight.....	136
International Conference on Fisheries, Aquaculture and Marketing Of Sea Urchins (Announcement).....	137
Biologist Christine Biermann Awarded Redcliffe Institute Fellowship.....	138
Biography and Bibliography of D.B.James, P.S.Asha.....	140
Recent Echinoderm Publications and Papers in Press.....	148
Ailsa's Section	
Echinoderms in Literature.....	168
Beche-de-Mer Information Bulletin.....	170
How I Began Studying Echinoderms. Part 11. Casey Burns.....	171
Grigory Winter.....	172
New Echinodermata (Ophiocistoidea) found on the North-East of Russian Plate (Europe part of Russia), Grigory Winter.....	174
Alan Guille Obituary.....	182

ECHINODERM SPECIALISTS AND NEWSLETTER RECIPIENTS

CENTRO DE INVESTIGACIONES BIOLOGIA MARINA
CC NO. 157
1650 SAN MARTIN
BUENOS AIRES, ARGENTINA

LIBRARY
NATIONAL MARINE FISHERIES SERVICE
W.F. THOMPSON MEMORIAL LIBRARY
P.O. BOX 1638
KODIAK, AK 99615

LIBRARY
NATIONAL MUSEUMS OF KENYA
PO BOX 40658
NAIROBI, KENYA
p- 254-2-742131/4; f- 254-2-741424; nmk@africaonline.co.ke

LIBRARY
NATURALIS - NATIONAL MUSEUM OF NATURAL HISTORY
PO BOX 9517
2300 RA LEIDEN, THE NETHERLANDS
p- +31 71-5687668; f- +31 71-5687666; library@naturalis.nnm.nl

THE LIBRARY
MANDAPAM REGIONAL CENTRE- CMFRI
MARINE FISHERIES PO 623520
MANDAPAM CAMP, RAMANATHAPURAM DIST
TAMILNADU, INDIA

ABREU, MARIA HELENA
RUA DA ARQUINHA, 92
9500 PONTA DELGADA
S. MIGUEL-AZORES, PORTUGAL
helab@linus.uac.pt

ABREU, MERCEDES
INSTITUTE OF OCEANOLOGY
AVE 1 ra. No 18406
E/184 y 186 RPTO FLORES, PLAYA 1210
HAVANA, CUBA
p- (537) 21 03 00 ; f- (537) 33 91 12; ecomar@oceano.inf.cu

ACUNA, FABIAN H.
DEPTO DE CIENCIAS MARINAS
FAC de CS EX y NAT (UNMdP), FUNES 3250
7600 MAR DEL PLATA, ARGENTINA
p- 0054 223 4753554; f- 0054 223 4753150; facuna@mdp.edu.ar

ADAMS, NIKKI L.
UNIVERSITY OF CALIFORNIA
DEPT MOLECULAR CELLULAR & DEVELOPMENTAL BIOL
SANTA BARBARA, CA 93106-9610
p- 805-893-8804; f- 805-893-4724; n_adams@lifesci.ucsb.edu

ADAMS, SEREAN
33 CANNINGTON ROAD
DUNEDIN, NEW ZEALAND
p- 64-3-479-5810; serean.adams@stonebow.otago.ac.nz

ADDISON, JASON A.
DALHOUSIE UNIVERSITY
DEPT BIOLOGY
HALIFAX NS B3H 4J1 CANADA
p- 902-494-6665; f- 902-494-3736; jaddison@is2.dal.ca

AGATSUMA, YUKIO
TOHOKU UNIVERSITY
LAB APPLIED BOTANY, FAC AGRIC
1-1 TSUTSUMIDORI-AMAMIYA
AOBA SENDAI, MIYAGI 981 JAPAN
p- +81-022-717-8847; f- +81-022-717-8847
agatsuma@bios.tohoku.ac.jp

AHEARN, CYNTHIA
SMITHSONIAN INSTITUTION
NAT MUSEUM OF NATURAL HISTORY
ROOM W318, MAIL STOP 163
WASHINGTON, DC 20560-0163
p- 202-786-2125; f- 202-357-3043; ahearn.cynthia@nmnh.si.edu

AHLGREN, MOLLY O.
SHELDON JACKSON COLLEGE
SCIENCE DIVISION
801 LINCOLN ST
SITKA, AK 99835
p- 907-747-5255; f- 907-747-5254; moahlgren@sj-alaska.edu

ALBI, YVONNE Z.
PO BOX 45828
LOS ANGELES, CA 90045
p- 310-823-3345; holaster@aol.com

ALCOCK, NICOLA K.
NATIONAL INSTITUTE WATER & ATMOSPHERIC RESEARCH
PO BOX 893
NELSON, SOUTH ISLAND, 7001 NEW ZEALAND
p- +64-3-545-7736; f- +64-3-548-1716; n.alcock@niwa.cri.nz

ALI, MOHAMED SAID M.
EL MINIA UNIVERSITY
DEPT GEOLOGY, FACULTY SCIENCE
EL MINIA, EGYPT
p- 86-32-30-11; f- 86-33-26-01

ALLEN, JOHN A.
UNIVERSITY MARINE BIOLOGICAL STATION
MILLPORT
ISLE OF CUMBRAE, KA28 0EG SCOTLAND UK
p- 01475-530581; f- 01475-530601; gbfe01@udef.ac.uk

ALLISON, WILLIAM R.
KOTHANMAAGE - SOUTH
APT S-05
MAAVEYOMAGU, MARFANNU
MALE, REPUBLIC OF MALDIVES
p- 960-32-9667; f- 960-32-6884 or 4865
wallison@dhivehinet.net.mv

ALVA, VICTOR
INSTITUT DE CIENCIES DEL MAR, C.S.I.C.
PASSEIG JOAN DE BORBO s/n
BARCELONA 08039 SPAIN
p- 34-3-221-73-40; f- 34-3-221-64-16; valva@masagran.uab.be

ALVAREZ, LEONARDO RAMON
COLORADO #79
NAPOLES
MEXICO D.F. 03810, MEXICO
p- 525-6609730; f- 525-6609733; alvarez_r@hotmail.com

ALVAREZ, MARTINEZ DE
UNIVERSIDAD DE LA LAGUNA
DEPARTAMENTO DE ZOOLOGIA
TENERIFE, CANARY ISLANDS

AMEZIANE, NADIA
MUSEUM NATIONAL D'HISTOIRE NATURELLE
BIOLOGIE INVERTEBRES MARINS
55 RUE BUFFON
PARIS, 75005 FRANCE
p- 33-01-40-79-30-95; f- 33-01-40-79-30-89; cominard@mnhn.fr

ANDACHT, TRACY M.
395 MILLEDGE CIRCLE
ATHENS, GA 30606
p- 706-613-9640; tandacht@acpub.duke.edu

ANDERSON, EDWIN J.
TEMPLE UNIVERSITY
DEPT GEOLOGY
PHILADELPHIA, PA 19122
p- 215-204-8249; f- 215-204-3496; andy@astro.temple.edu

ANDERSON, JOHN M.
110 ROAT ST
ITHACA, NY 14850
JMander@clarityconnect.com

ANDERSON, OWEN
DEEPWATER GROUP, NIWA
GRETA POINT, PO BOX 14-901
KILBIRNIE, WELLINGTON, NEW ZEALAND
p- +64-4-386-0300; f- +64-4-386-0574; o.anderson@niwa.cri.nz

ANDERSON, ROLAND C.
THE SEATTLE AQUARIUM
PIER 59, WATERFRONT PARK
1483 ALASKAN WAY
SEATTLE, WA 98101-2059
p- 206-386-4347; f- 206-386-4328

ANDRADE, HECTOR
UNIVERSIDAD DE VALPARAISO
INSTITUTO DE OCEANOLOGIA
CASILLA 13-D
VINA DEL MAR, CHILE

ANDREW, NEIL
301 EVANS BAY PARADE
WELLINGTON, NEW ZEALAND
p- 04-386 0598; f- 04-386 0574; n.andrew@niwa.cri.nz

ARAKAKI, YUJI
MEIO UNIVERSITY
DEPT TOURISM, FAC INTERNAT'L STUDIES
220-1 BIMATA, NAGO
OKINAWA, 905-8585 JAPAN
p- 0980-51-1081; f- 0980-52-4640; arakaki@tor.meio-u.ac.jp

ARCHER, JEFFREY E.
c/o BEIJING LANDA AQUARIUM
18 GAOLIANGQIAO XIEJIE, HAIDIAN DISTRICT
BEIJING, 100081 PR OF CHINA
p-+86 10 6218 0998; f-+86 10 6218 7829; jeffarcher@hotmail.com

ARENDT, YURII A.
PALEONTOLOGICAL INSTITUTE
RUSSIAN ACADEMY OF SCIENCES
PROFSOYUSNAYA STR. 123
117647 MOSCOW, RUSSIA

ARISOLA, AMELIA T.
SEAFDEC AQUACULTURE DEPT, THE LIBRARY
PO BOX 256
TIGBAUAN, ILOILO, 5021 PHILIPPINES
p- (63-33) 336 2965 or 2937; f- (63-33) 336-2891
library@aqd.seafdec.org.ph OR aqdlb@i-iloilo.com.ph

ARIZA, SANDRA
INST CIENC DEL MAR Y LIMNOL, UNAM
LAB DE ECOLOGIA DE EQUINODERMOS
APDO. POST. 70-305
MEXICO, D.F., 04510 MEXICO
p- 525-622-58-02; f- 525-616-07-48; ariza@sandra.usa.net

ARNAUD, PATRICK M.
CENTRE D'OCEANOLOGIE DE MARSEILLE
STATION MARINE D'ENDOUME
MARSEILLE, 13007 FRANCE
p- 91 52.12.94

ARONSON, RICHARD B.
DAUPHIN ISLAND SEA LAB
MAR ENVIRON SCI CONSORTIUM
101 BIENVILLE BOULEVARD
DAUPHIN ISLAND, AL 36528
p- 334-861-7567; f- 334-861-7540
raronson@jaguar1.usouthal.edu

ARTECHE, INAKI
DEPARTAMENTO DE BIOLOGIA (ZOOLOGY)
FACULTAD DE CIENCIAS, APARTADO 644
BALBOA, SPAIN

ASATURIAN, SUZANNE
CARBONDALE COMMUNITY HIGH SCHOOL
200 NORTH SPRINGER ST
CARBONDALE, IL 62901
sasaturian@cchs165.jacksn.k12.il.us

ASHA, PAYIKAT
TRC OF CMFRI
115, N.K. CHETTY STREET
TUTICORIN TAMIL NADU, 628001 INDIA
p- 91-461-320102; f- 91-461-30198; ashasanil@yahoo.com

AUSICH, WILLIAM I.
THE OHIO STATE UNIVERSITY
DEPT GEOLOGICAL SCIENCES
155 SOUTH OVAL MALL
COLUMBUS, OH 43210-1308
p- 614-292-0069; f- 614-292-7688; ausich.1@osu.edu

AUSTIN, WILLIAM
KHOYATAN MARINE LABORATORY
4635 ALDER GLEN ROAD, RR1, COWICHAN BAY
BRITISH COLUMBIA, VOR 1NO CANADA

BAKER, ALAN N.
DEPT CONSERVATION
PO BOX 10-420
WELLINGTON, NEW ZEALAND
p- 64 4 471 3299; f- 64 4 471 3048; abaker@doc.govt.nz

BALCH, TOBY
DALHOUSIE UNIVERSITY
DEPT BIOLOGY
HALIFAX NS B3H 4J1 CANADA
p- 902-494-2296; f- 902-494-3736; tbalch@is2.dal.ca

BALHOFF, JAMES P.
DUKE UNIVERSITY
DEPT BIOLOGY, BOX 90338
DURHAM, NC 27708-0338
p- 919-668-6249; f- 919-660-7293; james.balhoff@duke.edu

BALL, BRENDAN JOHN
UNIVERSITY COLLEGE GALWAY
MARTIN RYAN MARINE SCIENCE INST, ZOOL DEPT
GALWAY, IRELAND

BALSER, ELIZABETH J.
ILLINOIS WESLEYAN UNIVERSITY
DEPT BIOLOGY, PO BOX 2900
BLOOMINGTON, IL 61702-2900
p- 309-556-3307; f- 309-556-3864; sbalsers@titan.iwu.edu

BANGI, HELEN GRACE P.
MARINE SCIENCE INSTITUTE
UNIVERSITY OF THE PHILIPPINES
PO BOX 1, DILIMAN 1101
QUEZON CITY, THE PHILIPPINES
p- 632-922-3921; 632-920-5301 to 5399 loc. 7430; f- 632-924-7678
hgb@msi01.cs.upd.edu.ph

BARBOSA LEDESMA, ISRAEL FABRICIO
INST CIENC DEL MAR Y LIMNOL, UNAM
LAB DE ECOLOGIA DE EQUINODERMOS
APDO. POST. 70-305
MEXICO, D.F., 04510 MEXICO
p- 525-622-58-02; f- 525-616-07-48;
fabarbos@mar.icmyl.unam.mx OR
fabo_explorer@hotmail.com

BARCELLOS, CAMILA
RUA DOMINGOS FERREIRA 95/601
COPACABANA
RIO DE JANEIRO, RJ, 22050-010 BRAZIL
p- 55-21-5477561; camilabarcellos@hotmail.com

BARICCHI, ELISA
CORSO MILANO 86
NOVARA 28100 ITALY
elbaric@tin.it

BARKER, MICHAEL F.
UNIVERSITY OF OTAGO
DEPT MARINE SCIENCE
DUNEDIN, NEW ZEALAND
p- 643-479-5820; f- 64 3 479-5825
mike.barker@stonebow.otago.ac.nz

BARTSCH, ILSE
BIOLOGISCHE ANSTALT HELGOLAND
NOTKESTR. 31
HAMBURG 22607 GERMANY
p- 49 40 89 69 32 12; f- 49 40 89 69 31 15

BASCH, LARRY V.
NAT'L PARK SERV, ECOLOGIST-COASTAL MANAGER
ALASKA SOUTHEAST COASTAL PARKS CLUSTER
PO BOX 140
GUSTAVUS, AK 99826
p- 907-697-2622; f- 907-697-2654; sealives@seaknet.alaska.edu

BASKAR, B. K.
CENTRAL MARINE FISHERIES R.I.
E.R.G. ROAD, ERNACULAM
COCHIN 682031 INDIA

BAUER, JOHN C.
7794 CLOVERFIELD CIRCLE
BOCA RATON, FL 33433
p- 1-800-950-1589

BAUMILLER, TOMASZ K.
MUSEUM OF PALEONTOLOGY
UNIVERSITY OF MICHIGAN
1109 GEDDES ROAD
ANN ARBOR, MI 48109-1079
p- 313-764-7543; f- 313-936-1380; tomaszb@umich.edu

BAY-SCHMITH, ENRIQUE
INSTITUTO DE BIOLOGIA CELULAR
UNIVERSIDAD DE CONCEPCION
CONCEPCION, CHILE

BAZHIN, ALEXANDER
KAMCHATKA PACIFIC INST FISHERY
& OCEANOGR. (KAMCHATNIRO)
NABEREZHNYAYA, 18
PETROPAVLOVSK-KAMCHATSKY, 68302 RUSSIA
p- 415-222-35-00; f- 415-222-24-05

BEAVER, HAROLD H.
BAYLOR UNIVERSITY
DEPT GEOLOGY, PO BOX 97354
WACO, TX 76798-7354
p- 817-755-2361; f- 817-755-2673; harold-beaver@baylor.edu

BECKER, JOHANN
MUSEU NACIONAL
QUINTA DA BOA VISTA
RIO DE JANEIRO RJ 20940-040 BRAZIL

BEGBIE, KIRSTEN M.
GATTY MARINE LAB
EAST SANDS
ST ANDREWS KY16 8LB SCOTLAND UK
p- 0334-76161 ; f- 0334-63443; kmb2@st-andrews.ac.uk

BELL, BRUCE M.
POST OAK OIL COMPANY
13300 N MacARTHUR
OKLAHOMA CITY, OK 73142
p- 405-621-1300; f- 405-621-1301; Bankslick@aol.com

BELL, MIKE
CHELTENHAM AND GLOUCESTER COLLEGE
CHELTENHAM, GL50 4AZ ENGLAND UK
p- 00 44 1242 543498; mbell@chelt.ac.uk

BENAVIDES, MILENA
AA 1016 INVEMAR
CERRO DE PUNTA BETIN
SANTA MARTA, COLOMBIA
mbenavides@invemar.org.co

BENTLEY, ANDREW C.
JLB SMITH INSTITUTE OF ICHTHYOLOGY
COLLECTION MANAGER
GRAHAMSTOWN 6140 SOUTH AFRICA
p- +09-27-461-311002; f- +09-27-461-22403
ihab@giraffe.ru.ac.za

BERENTS, PENELOPE B.
AUSTRALIAN MUSEUM
INVERTEBRATE ZOOL, COLLECTION MANAGER
6 COLLEGE STREET
SYDNEY NSW 2010 AUSTRALIA
p- 61-2-9320-6134; f- 61-2-9320-6042; pennyb@austmus.gov.au

BERGEN, MARY
SOUTHERN CALIFORNIA COASTAL
WATER RESEARCH PROJECT
7171 FENWICK LANE
WESTMINSTER, CA 92683-5218
p- 714-894-2222; f- 714-894-9699
Mary_Bergen@email.msn.com

BERTRAM, DOUGLAS F.
ENVIRONMENT CANADA
PACIFIC WILDLIFE RES CTR
RR1 5421 ROBERTSON RD
DELTA, BC, V4K 3N2 CANADA
p- (604) 946-8546

BIBLIOTECA
MUSEU NACIONAL, UNIVERSIDADE
FEDERAL DO RIO DE JANEIRO
QUINTA DA BOA VISTA
RIO DE JANEIRO RJ BRAZIL

BIBLIOTHEK
BUNDESANSTALT FUR GEOWISS. UND ROHSTOFFE
POSTFACH 51 01 53
HANNOVER 51, D-3000 GERMANY

BIBLIOTHEQUE
MUSEE OCEANOGRAPHIQUE
AVENUE SAINT-MARTIN
MONACO VILLE, MC 98000 MONACO
p- +377-93-15-36-07; f- +377-93-50-52-97
mcmobiblio@meditnet.com

BIERMANN, CHRISTIANE H.
FRIDAY HARBOR LABORATORIES
620 UNIVERSITY ROAD
FRIDAY HARBOR, WA 98250-9299
p- 360-378-2165; f- 206-543-1484;
biermann@fhl.washington.edu

BILLETT, DAVID S.M.
DEEPSEAS BENTHIC BIOLOGY GROUP
SOUTHAMPTON OCEANOGRAPHY CENTRE
WATERFRONT CAMPUS, EUROPEAN WAY
SOUTHAMPTON SO14 3ZH GREAT BRITAIN UK
p- +44 (0)23 80 596 354; f- +44 (0)23 80 596 247
David.S.M.Billett@soc.soton.ac.uk

BIN ABDUL ADZIS, KEE ALFIAN
PUSAT PENGAJIAN SAINS SEKITARAN
& SUMBER ALAM, FAK SAINS & TEKNOLOGI
UNIVERSITI KEBANGSAAN MALAYSIA
43600 UKM BANGI, MALAYSIA
p- 019-873-2768; keelf@hotmail.com

BIRENHEIDE, RUEDIGER
3606 OVERLOOK DRIVE
NANAIMO BC V9T 1M6 CANADA
p- 250-758-5848; ruedi@birenheide.com

BIRKELAND, CHARLES E.
HAWAII COOPERATIVE FISH. RES. UNIT
2538 THE MALL, EDMONDSON HALL
UNIVERSITY OF HAWAII, MANOA
HONOLULU, HI 96822
p-808-956-8350; f-808-956-4238; charlesbirkeland@hotmail.com

BIRYUKOVA, INGA V.
TINRO - PACIFIC RESEARCH FISHERY CENTER
4 SHEVCHENKO ALLEY
VLADIVOSTOK 690600 RUSSIA
p- (4232) 25-95-04; f- (4232) 25-77-83; root@tinro.marine.su

BITTER, RICARDO A.
CENTRO INVESTIGACIONES MARINAS
(CIMAR) COMPLEJO DOCENTE EL HATILLO
CARRETERA MORON-CORO
LA VELA DE CORO 4131 VENEZUELA
p- 58(68) 78780; f- 58(68) 78780; rbitter@funflc.org.ve

BLACK, ROBERT
UNIVERSITY OF WESTERN AUSTRALIA
DEPT ZOOLOGY
35 STIRLING HIGHWAY
CRAWLEY, WA 6009 AUSTRALIA
p- +61 8 9380-2232; f- +61 8 9380-1029
rblack@cyllene.uwa.edu.au

BLAKE, DANIEL B.
UNIVERSITY OF ILLINOIS
DEPT GEOLOGY, 245 NHB
1301 W GREEN ST
URBANA, IL 61801
p- 217-333-3833; f- 217-244-4996; dblake@uiuc.edu

BLECHMAN, PEG
2201 - 42nd STREET NW #101
WASHINGTON, DC 20007
p- 202-272-5434 ext. 146; f- 202-272-5447
blechman@access-board.gov

BOCKELIE, JOHAN F.
NORSK HYDRO EXPLORATION
PO BOX 200
N-1321 STABEKK, NORWAY
p- +47-22-73-79-67; f- +47-22-73-90-70

BOCZAROWSKI, ANDRZEJ
UNIVERSITY OF SILESIA
DEPT EARTH SCIENCES
BEDZINSKA STR 60
SOSNOWIEC 41-200, POLAND
p- 0048/032/2918381 (282); f- 0048/032/2915865
boczar@us.edu.pl

BODENFORSCHUNG, BUNDESANSTALT F
BIBLIOTHEK-L
3 HANNOVER-BUCHOLZ
POSTFACH 54
STILLEWEG 2, GERMANY

BOETTGER, ANNE
UNIV OF ALABAMA AT BIRMINGHAM
DEPT BIOLOGY, CAMPBELL HALL
1300 UNIVERSITY BOULEVARD
BIRMINGHAM, AL 35294-1170
p- 205-934-1034; f- 205-975-6097; boettger@uab.edu

BONASORO, FRANCESCO
UNIV DEGLI STUDI DI MILANO
DEPT BIOLOGIA, SEZIONE ZOOLOGIA
VIA CELORIA 26
MILANO, 20133 ITALY
p- +39 2 2660 4465; f- +39 2 2660 4462
bonasoro@imiucca.csi.unimi.it

BORGES, MICHELA
UNICAMP- UNIV ESTADUAL DE CAMPINAS
CIDADE UNIVERSITARIA "ZEFERINO VAZ"
ZOOLOGIA-INST BIOLOGIA, CAIXA POSTAL 6109
CAMPINAS, SAO PAULO CEP-13083- BRAZIL
michelab@LatinMail.com

BORRERO, GIOMAR
AA 1016 INVEMAR
CERRO DE PUNTA BETIN
SANTA MARTA, COLOMBIA
p- 4211380-4214774 (ext 161-144); f- 4211377-4230442
gborrero@invemar.org.co

BORZONE, CARLOS A.
UNIVERSIDADE FEDERAL DO PARANA
CENTRO DE ESTUDOS DO MAR
AV BEIRA MAR, s/n, PONTAL DO SUL
PARANAGUA, PARANA, 83255-000 BRAZIL
p- 0055 (041) 455-1333; f- 0055 (041) 455-1105
capborza@aica.cem.ufpr.br

BOSCH, ISIDRO M.
STATE UNIVERSITY NEW YORK, GENESEO
DEPT BIOLOGY, 1 COLLEGE CIRCLE
GENESEO, NY 14454
p- 716-245-5303; f- 716-245-5007; bosch@uno.cc.geneseo.edu

BOTTJER, DAVID
UNIVERSITY OF SOUTHERN CALIFORNIA
DEPT GEOLOGICAL SCIENCES
LOS ANGELES, CA 90089

BOUDOURESQUE, CHARLES F.
CENTRE D'OCEANOLOGIE DE MARSEILLE
UMR 6540 CNRS DIMAR - CASE 901
CAMPUS DE LUMINY
MARSEILLE CEDEX 9, 13288 FRANCE
p- (33)04 91 82 91 30; f- (33)04 91 41 12 65
boudour@com.univ-mrs.fr

BOULAND, CATHERINE
UNIVERSITE LAVAL
DEPARTEMENT DE BIOLOGIE
QUEBEC, QUEBEC G1K 7P4 CANADA

BOURGOIN, ALLAIN
UNIVERSITE DE MONCTON
CAMPUS SHIPPIGAN, PO BOX 2000
SHIPPIGAN, NB EOB 2PO CANADA
p- 506-336-3425; f- 506-336-3434; allain@cus.ca

BRANDT, DANITA S.
MICHIGAN STATE UNIVERSITY
DEPT GEOLOGICAL SCIENCES
206 NATURAL SCIENCE BLDG
EAST LANSING, MI 48824-1115
p- 517-355-4626; f- 517-353-8787; brandt@msu.edu

BRAY, RICHARD D.
176 WEST MAIN ST
PORT JERVIS, NY 12771
p- 966-3-878-9366; brayrd@mail.aramco.com.sa

BREGMAN, YURIY E.
PACIFIC RESEARCH INSTITUTE
FISHERIES & OCEANOGRAPHY (TINRO)
SHEVCHENKO AVENUE 4
VLADIVOSTOK, 690600 RUSSIA
p- 4232-257-730; f- 4232-257-783; root@tinro.marine.su

BRETON, GERARD
MUSEUM D'HISTOIRE NATURELLE
PLACE DU VIEUX MARCHE
LE HAVRE, 76600 FRANCE
p- 33(0)2 35 41 37 28; f- 33(0)2 35 42 12 40
gerard.breton@ville.lehavre.fr

BRETT, CARLETON
UNIVERSITY OF ROCHESTER
DEPT GEOLOGICAL SCIENCES
ROCHESTER, NY 14627

BREWIN, PAUL E.
UNIVERSITY OF OTAGO
DEPT MARINE SCIENCE
PO BOX 56
DUNEDIN, NEW ZEALAND
p- 3-479-8306; marinesci@otago.ac.nz

BREY, THOMAS
ALFRED WEGENER INSTITUTE FOR POLAR
& MAR RESEARCH, ECOLOGY & ECOPHYSIOLOGY
PO BOX 120161
BREMERHAVEN, D-27515 GERMANY
p- ++49 (0) 471 4831 1316; f- ++49 (0) 471 4831 1149
tbrey@awi-bremerhaven.de

BROADHEAD, THOMAS
UNIVERSITY OF TENNESSEE
DEPT GEOLOGICAL SCIENCE
KNOXVILLE, TN 37996

BROGGER, MARTIN I.
UNIVERSIDAD DE BUENOS AIRES
FACULTAD DE CIENCIAS EX Y NAT
PABELLON II, CIUDAD UNIVERSITARIA
BUENOS AIRES 1428 ARGENTINA
p- 4805-3663; f- 4805-3663; eltincho@ciudad.com.ar

BROWER, JAMES C.
SYRACUSE UNIVERSITY
DEPT EARTH SCIENCES
204 HEROY GEOLOGY LABORATORY
SYRACUSE, NY 13244-1070
p- 315-443-3440 (work); 315-492-6657 (home)

BRUMBAUGH, JOE
SONOMA STATE UNIVERSITY
DEPT BIOLOGY
ROHNERT PARK, CA 94928

BRUNEL, PIERRE
UNIVERSITE DE MONTREAL
DEPT SCIENCES BIOLOGIQUES
PO BOX 6128, STATION CENTRE-VILLE
MONTREAL, QC H3C 3J7 CANADA
p- 514-343-7461; f- 514-343-2293

BUARUANG, JAMREARN
MARINE BIODIVERSITY RESEARCH GROUP
DEPT BIOLOGY, FACULTY SCIENCE
RAMKHAMHAENG UNIVERSITY
BANGKOK, 10240 THAILAND
p- 662-3195219 ext 244; f- 662-3195219 ext 244
jamrearn@hotmail.com

BUCKLEY, CATHRYN
11718 LAUREL VALLEY CIRCLE
WELLINGTON, FL 33414
p- 561-333-1449; cdgb@aol.com

BUITRON-SANCHEZ, BLANCA E.
INSTITUTO DE GEOLOGIA, UNAM
CIUDAD UNIVERSITARIA
DELEG. COYOACAN
04510 MEXICO, D.F., MEXICO
p- 525 622 42 97; f- 525 550 66 44

BUNDRICK, CARLA J.
24 TALBOT ST
SALINAS, CA 93901
p- 831-422-7012; Bookw342@aol.com

BURCH, BEATRICE L.
& THOMAS A. BURCH, RESEARCH ASSOCIATES
BERNICE P. BISHOP MUSEUM
1525 BERNICE ST
HONOLULU, HI 96817-0916
p- 808-261-7465; f- 808-263-6408; taburch@gte.net

BURKE, ROBERT
UNIVERSITY OF VICTORIA
DEPT BIOLOGY
VICTORIA, BC V8W 2F2 CANADA
p- 604-721-710; f- 604-721-8653

BURNS, CASEY
9962 SHORTY CAMPBELL ROAD
KINGSTON, WA 98346
p- 360-297-4020; cburns@mail2.telebyte.com OR cburns@kri.org

BURTON, MARGARET
MEMORIAL UNIVERSITY OF NEWFLD
DEPT BIOLOGY
ST JOHN'S, NF A1B 3X9 CANADA

BUSSARAWIT, SOMCHAI
PHUKET MARINE BIOLOGICAL CENTER
PO BOX 60
PHUKET 83000 THAILAND
p- 66-76-391128; f- 66-76-391127; pmbcnet@phuket.ksc.co.th

BUSTER, PETER P.T.M
GREVENBICHTSTRAAT 66
5043 MD TILBURG, THE NETHERLANDS
thebus@pi.net

BUSTOS ROJAS, HECTOR EDUARDO
DIVISION DE ACUICULTURA
BALMACEDA 252
PUERTO MONTT, CHILE
p- (56-65) 250085-264697; f- (56-65) 262961; ebustos@ifop.cl

BYRNE, MARIA
UNIVERSITY OF SYDNEY
DEPT EMBRYOLOGY & HISTOLOGY F13
SYDNEY NSW 2006 AUSTRALIA
p-61-2-9351-5166; f-61-2-9351-2813; mbyrne@anatomy.su.oz.a

CAMERON, R. ANDREW
CALIFORNIA INSTITUTE TECHNOLOGY
DIVISION BIOLOGY 156-29
PASADENA, CA 91125
p- 626-395-8421; f- 626-793-3047; acameron@cco.caltech.edu

CAMPAGNA, SOPHIE
PACIFIC BIOLOGICAL STATION
DEPT FISHERIES & OCEANS
NANAIMO, BC V9R 5K6 CANADA
p- 250-756-7354; f- 250-756-7138; campagnas@dfo-mpo.gc.ca

CAMPBELL, ALAN
PACIFIC BIOLOGICAL STATION
DEPT FISHERIES & OCEANS
NANAIMO, BC V9R 5K6 CANADA
p- 250-756-7124; f- 250-756-7138; campbella@dfo-mpo.gc.ca

CAMPBELL, ANDREW C.
QUEEN MARY & WESTFIELD COLLEGE
SCHOOL OF BIOLOGICAL SCIENCES
UNIVERSITY LONDON, MILE END RD
LONDON E1 4NS ENGLAND, UK
p- +44 (0) 2078823298; f- +44 (0) 2089830973
a.c.campbell@qmw.ac.uk

CAMPBELL, DAVID B.
RIDER COLLEGE, BIOLOGY DEPARTMENT
2083 LAWRENCEVILLE ROAD
LAWRENCEVILLE, NJ 08648-3099
p- 609-895-5418; f- 609-895-5782; campbell@rider.edu

CAMPOS-CREASEY, LUCIA S.
UNIVERSIDADE SANTA URSULA
INSTITUTO DE CIENCIAS BIOLÓGICAS E AMBIENTAIS
RUA JORNALISTA ORLANDO DANTAS, 59 BOTAFOGO
RIO DE JANEIRO-RJ, CEP BRAZIL
p- +55(0)21 5525422 ext 169; f- +55(0)21 5516446
lsc_creasey@npd.ufpe.br or lsc_creasey@hotmail.com

CANDIA-CARNEVALI, M. DANIELA
UNIV. DEGLI STUDI DI MILANO
DIPARTIMENTO DI BIOLOGIA
VIA CELORIA 26
MILANO 20133 ITALY
p- 39-02-2277-4475; f- 39-02-2277-4472
cndmdn@imiucca.csi.unimi.it

CANNON, LESTER R.
SENIOR CURATOR, WORMS
QUEENSLAND MUSEUM, PO BOX 3300
SOUTH BRISBANE, QLD 4101 AUSTRALIA
p- +617-3840-7724; f- +617-3846-1226; LesterC@qm.qld.gov.au

CARCAMO, ALFONSO G.
UNIVERSIDAD DE CHILE-OSORNO
CASILLA 933
OSORNO, CHILE

CARDER, NANCY
6503 LA PALOMA CT
CARLSBAD, CA 92009

CAREY JR, ANDREW G.
OREGON STATE UNIVERSITY
COLLEGE OCEANIC & ATMOSPHERIC SCI
104 OCEANOGRAPHY ADMIN BLDG
CORVALLIS, OR 97331-5503
p- 541-737-2525; f- 541-737-2064; acarey@oce.orst.edu

CARNEY, ROBERT S.
LOUISIANA STATE UNIVERSITY
COASTAL RESOURCES LABORATORY
BATON ROUGE, LA 70803
p- 504-388-6511; f- 504-388-6326; carney@wr3600.cwr.lsu.edu

CARPENTER, ROBERT C.
CALIFORNIA STATE UNIVERSITY
DEPT BIOLOGY
NORTHRIDGE, CA 91330

CARROLL, DAVID
FLORIDA INST OF TECHNOLOGY
DEPT BIOLOGICAL SCIENCES
150 W UNIVERSITY BLVD
MELBOURNE, FL 32901-6975
p- 321-674-7133; f- 321-674-7238; dcarroll@fit.edu

CASTILLO, JUAN CAROLOS
ECOLOGIA MARINA
FAC. C BIOLÓGICAS, UNIVERSIDAD CATOLICA
CASILLA 114-D
SANTIAGO, CHILE
p- 56-2-222-4561; f- 56-2-222-5515

CASTRO, JOAO
LABORATORIO DE CIENCIAS DO MAR
UNIVERSIDADE DE EVORA
APARTADO 190
SINES 7520-903 PORTUGAL
ciemar@mail.telepac.pt

CASTRO, LILY ROMINA
C/O CICESE
PO BOX 434843
SAN DIEGO, CA 92143

CHAMPAGNE, BRUCE
PO BOX 555
DUCHESNE, UT 84021
p- 435-738-2696; bruce.champagne@mailcity.com

CHANG, YA-QING
DALIAN FISHERIES UNIVERSITY
AQUACULTURE DEPARTMENT
52# HEISHIJIAO STREET
DALIAN, LIAONING PROVINCE 116023 P.R. CHINA
p- (+86-411)-4688618; f- (+86-411)-4671639;
dlnel@mail.dlptt.ln.cn

CHAO, SHYH-MIN
NATL MUSEUM NATURAL SCIENCE
DIV COLLECTION & RESEARCH
1, KUAN CHIEN RD
TAICHUNG 404, TAIWAN
f- 086-4-3222290; chaosm@nmns1.nmns.edu.tw

CHAVARRO, SONIA BEJARANO
Tv. 14 A No 130
A-20 APTO 401 INT 4
BOGOTA 2169634 COLOMBIA
soniabe@divemail.com

CHEN, CHANG-PO
INSTITUTE OF ZOOLOGY, ACADEMIA SINICA
NANKANG, TAIPEI 115 TAIWAN
p- 88-62-789-9548; f- 88-62-785-8059; zocp@ccvax.sinica.edu.tw

CHENUIL, ANNE
UMR CNRS 7628
OBSERVATOIRE OCEANOLOGIQUE, BP 44
BANYULS-SUR-MER, 66651 FRANCE
p- +33 6888 7318; f- +33 6888 7383; chenuil@obs-banyuls.fr

CHIA, FU-SHIANG
937 BLACKETT WYND
EDMONTON, AB T6W 1A9 CANADA
p- (780) 433-9395; f- (780) 433-9401

CHICCA, ANGIE
912 DELFERN ROAD
BUTTONWILLOW, CA 93206
cure701@aol.com

CHING, CHONG VING
INSTITUTE BIOLOGICAL SCIENCES
UNIVERSITY OF MALAYA
KUALA LUMPUR 50603 MALAYSIA
h1chongv@umcsd.um.edu.my

CHIU, SEIN TUCK
HONG KONG BAPTIST COLLEGE, DEPT BIOLOGY
224 WATERLOO ROAD
KOWLOON, HONG KONG

CHONE, THERESE
CNRS UMR 5561 BIOGEOSCIENCES-DIJON
CENTRE DE SCIENCES DE LA TERRE
UNIV BOURGOGNE, 6 BD GABRIEL
DIJON 21000 FRANCE
p- +33 3 80 39 63 71; f- +33 3 80 39 63 87
therese.chone@u-bourgogne.fr

CHRISTENSEN, ANA BEARDSLEY
LAMAR UNIVERSITY
BIOLOGY DEPT, PO BOX 10037
BEAUMONT, TX 77710
p- 409-880-8260; f- 409-880-1827; christenab@hal.lamar.edu

CHUNHABUNDIT, SURAPHOL
AQUATIC RESOURCES RESEARCH INST
CHULALONGKORN UNIVERSITY
PTHUMWAN
BANGKOK 10330 THAILAND
p- 66-2-2188039; f- 66-2-2544259; csuraphol@yahoo.com

CINTRA BUENROSTRO, CARLOS E.
UNIV AUTONOMA DE BAJA CALIFORNIA SUR
CARR. AL SUR KM. 5.5, A.P. 19-B
LA PAZ, B.C.S., 23080 MEXICO
p- (112) 111-40; f- (112) 124-77; ccintra@calafia.uabcs.mx

CISTERNAS, PAULA
SCHOOL OF BIOLOGICAL SCIENCES, AO8
SYDNEY NSW, 2006 AUSTRALIA
p- 02-93512437; f- 02-93514119; paula@bio.usyd.edu.au

CLARK, AILSA MCGOWN
GYLLYNGDUNE, SOUTH ROAD
WIVELSFIELD GREEN, HAYWARDS HEATH
SUSSEX RH17 7QS ENGLAND, UK
p- 01444 471357

CLARK, ROGER N.
1839 ARTHUR STREET
KLAMATH FALLS, OR 97603-4617
p- 541-883-7582; f- 541-885-3889; insignis@cdsnet.net

CLEMENTS, LEE ANN J.
JACKSONVILLE UNIVERSITY
ASSOC PROF, DEPT BIOL & MARINE SCI
2800 UNIVERSITY BLVD N
JACKSONVILLE, FL 32211
p- 904-745-7300 ext 7322; f- 904-745-7573; lclemen@ju.edu

CLOUSE, RONALD M.
521 E 81st ST, 2A
NEW YORK, NY 10028
p- 212-737-6045; Ronald-Clouse@deshaw.com

CLOUTE, M. EUGENIA
UNIVERSIDAD DE MALAGA
DEPARTAMENTO DE BIOLOGIA ANIMAL
CAMPUS DE TEATINOS s/n
MALAGA, 29010 SPAIN
p- 95213 23 84/95239 62 73; mecloute@uma.es

COBB, JAMES L.S.
GATTY MARINE LAB
ST. ANDREWS, FIFE, SCOTLAND UK
f- 334 76161

COLE, RUSSELL G.
NATIONAL INSTITUTE OF WATER
AND ATMOSPHERIC RESEARCH, BOX 893
NELSON, SOUTH ISLAND 7001 NEW ZEALAND
p- +64-3-548-1715; f- +64-3-548-1716; r.cole@niwa.cri.nz

CONAND, CHANTAL
UNIVERSITE DE LA REUNION
LAB ECOLOGIE MARINE
15 AVENUE RENE CASSIN
SAINT DENIS, CEDEX 9, 97715 FRANCE
p- 0262-93-81-78; f- 0262-93-81-66; conand@univ-reunion.fr

CONLU, PRUDENCIA
UNIVERSITY OF PHILIPPINES IN
THE VISAYAS, COLLEGE OF FISHERIES
MIAGAO, ILOILO, THE PHILIPPINES

CONSTABLE, ANDREW J.
ASNRM, DEAKIN UNIVERSITY
P.O. BOX 423, WARRNAMBOOL
VICTORIA 3280, AUSTRALIA
p- 61-55-633099; f- 61-55-633462; aconst@deakin.edu.au

CONTI, GABRIELE
VIA MILANO 13
ASSEMINI, 09032 ITALY
p- 070/947367; polychaeta@tiscalinet.it

COPPARD, SIMON
QUEEN MARY & WESTFIELD COLLEGE
SCHOOL OF BIOLOGICAL SCIENCES
UNIVERSITY LONDON, MILE END RD
LONDON E1 4NS ENGLAND, UK
p- 44-1-71-775-3298; f- 44-1-81-983-0973

COSTA, HENRIQUE R.
DPTO BIOLOGIA MARINA, UFRJ
B1 A CCS-I FUNDAO
RIO DE JANEIRO, RJ 21910 BRAZIL

COSTELLO, MARK J.
ECOLOGICAL CONSULTANCY SERVICES LTD
(ECOSERVE)
17 RATHFARNHAM ROAD, TERENURE
DUBLIN 6W, IRELAND
p- +353-1-490 32 37; f- +353-1-492 56 94; mcostello@ecoserve.ie

COSTELLOE, JOHN
UNIVERSITY COLLEGE
ZOOLOGY DEPARTMENT
GALWAY, IRELAND

COX, ROBERT
UNIVERSITY OF MICHIGAN
DEPT GEOLOGICAL SCIENCE
ANN ARBOR, MI 48109

CREASER, EMMA
UNITY COLLEGE
DEPT BIOLOGY
HC78, BOX 1
UNITY, ME 04988-9502
emma@chuma.cas.usf.edu

CRUMP, ROBIN G.
ORIELTON FIELD CENTRE
PEMBROKE, DYFED SA71 5EZ WALES UK
p- 1-64-666-1225; f- 1-64-666-1737

CUENCA, CATHERINE
ATLANTECH
RUE CHRISTIAN PAUC.
BP 40608
NANTES CEDEX 3, 44306 FRANCE
p- 02 51 85 74 68; f- 02 51 85 74 61; ccuenca@atlantech.fr

CUNHA DE JESUS, DORA MARIA
RUA DOS GAMAS, n. ||7-3||A
SINES 7520-206 PORTUGAL
p- 351-936-26-099-28; doraj@mail.telepac.pt

CUNNINGHAM, ADELE
3120 RANGER ROAD
CAHABA HEIGHTS, AL 35223
p- 934-8313; f- 975-6097; adelecunningham@uab.edu

DAFNI, JACOB M.
PO BOX 6469
EILAT 88000 ISRAEL
p- 972-7-6372383; f- 972-7-6304556; jdafni@netvision.net.il

DALBY, JR., JAMES E.
MINISTRY OF ENVIRONMENT, LANDS & PARKS
2080A LABIEUX ROAD
NANAIMO, BC V9T 6J9 CANADA
p- 250-729-9244; jamdal@telus.net

DALGLEISH, CLAIRE
ERT LTD
HERIOT-WATT UNIVERSITY
RESEARCH AVENUE 1
EDINBURGH, LOTHIAN EH14 4AP SCOTLAND UK
p- ++44 131 449 5030; f- ++44 131 449 5037
claire.dalgleish@ert.co.uk

DANTAS GENTIL, MARIA CLAUDIA
RUA DOIS DE DEZEMBRO
35 APT 207 FLAMENGO
RIO DE JANEIRO RJ, 22220-040 BRAZIL
p- 055 21 2651811; gentilmcd@hotmail.com

DARTNALL, ALAN
17 KEPLER ST
TOWNSVILLE, QLD AUSTRALIA
p- 07-47290068; ajdartnall@hotmail.com

DAUTOV, SALIM S.
MAGNITOGORSKAYA STR. 13
APTS. 48
VLADIVOSTOK, 690068 RUSSIA
p- 7-4232-311143; f- 7-4232-310900; daut@mail.primorye.ru

DAVID, BRUNO
UNIVERSITE DE BOURGOGNE
CENTRE DE SCIENCES DE LA TERRE
6 BD GABRIEL
DIJON 21000 FRANCE
p-+33 3 80 39 63 71; f-+33 3 80 39 63 87; bdavid@u-bourgogne.fr

DAVID, JEROME
UNIVERSITE DE REIMS, FACULTE DES SCIENCES
LAB SCI DE LA TERRE, BP347
REIMS, CEDEX 51062 FRANCE
p- 33-26-05-33-68; f- 33-26-05-32-79

DAVIS, JENNIFER
55 McMASTERS ROAD
SYDNEY, NSW 2256, AUSTRALIA
p- (02)4341 5663; cybergirl@today.com.au

DAVOULT, DOMINIQUE
STATION MARINE -UNIV SCI TECH DE LILLE
UPRES-A 8013 DU CNRS
28 AVENUE FOCH, BP 80
WIMEREUX 62930 FRANCE
p- 33-3-21-99-29-29; f- 33-3-21-99-29-01;
dom@loalit.univ-littoral.fr

DAY, ROB W.
UNIVERSITY MELBOURNE
DEPT ZOOLOGY
GATE 12, ROYAL PARADE
PARKVILLE, VICTORIA 3052 AUSTRALIA

DAYTON, PAUL K.
SCRIPPS INSTITUTION OCEANOGR, MAIL CODE 0227
9500 GILMAN DRIVE
LA JOLLA, CA 92093-0227
p- 858-534-6470; f- 858-534-6500; pdayton@ucsd.edu

DE JESUS, PROF ERNESTO
MANUEL RAMOS HERNANDEZ HIGH SCHOOL
CALLE JUAN LASALLE #149
QUEBRADILLAS 00678 PUERTO RICO

DE RIDDER, CHANTAL J.M.
UNIVERSITE LIBRE DE BRUXELLES
LABORATOIRE BIOL MARINE CP 160
AVE F.D. ROOSEVELT 50
BRUXELLES, B-1050 BELGIUM
p- 32-2-650-2966; f- 32-2-650-2796; cridder@ulb.ac.be

DE WIT, WALTER M.J.
DIEPESTEEG 25
6994 CC DE STEEG, THE NETHERLANDS
p- 08309-54344; f- 08309-51718

DEAN, JULIETTE
UNIVERSITY OF CAMBRIDGE
DEPT EARTH SCIENCES
DOWNING STREET
CAMBRIDGE, CB3 9DF ENGLAND, UK
p-+44 1223 333 446; f-+44 1223 333 450; jd10006@esc.cam.ac.uk

DEARBORN, JOHN H.
UNIVERSITY OF MAINE
SCHOOL OF MARINE SCIENCES
210 MURRAY HALL
ORONO, ME 04469-5751
p- 207-581-2552; f- 207-581-2537; dearborn@maine.maine.edu

DeGREEF, YVES
UNIVERSITE LIBRE DE BRUXELLES
LABORATOIRE BIOL MARINE CP 160
AVE F.D. ROOSEVELT 50
BRUXELLES B-1050 BELGIUM

DEHEYN, DIMITRI D.
SCRIPPS INSTITUTION OF OCEANOGRAPHY
UCSD-DPT 0202
9500 GILMAN DR
LA JOLLA, CA 92093-0202
p- 858-534-6579; f- 858-534-7313; ddeheyn@ucsd.edu

DEL VALLE, ROSA
INSTITUTO DE OCEANOLOGIA
AVE l ra. No. 18406
E/ 184 y 186 REPARTO FLORES
HAVANA, CUBA
p-(537) 21-0342, 21-0306;f-(537) 33-4255; ecomar@oceano.inf.cu

DELMAS, P.
UNIVERSITE D'AIX-MARSEILLE II
LAB DE ZOOL MARINE, CERAM
AVE ESC., NORM-NIEMEN
MARSEILLE CEDEX 13, F-13397 FRANCE

DEMARGNE, MICHAEL
RUE DE L'ANCIENNE MAIRIE 38730
VIRIEU SUR BOURBRE, FRANCE

DEPARTMENT, AQUACULTURE
SOUTHEAST ASIAN FISHERIES CTR
PO BOX 256
ILOILO CITY, THE PHILIPPINES

DETWILER, PAUL
4623 BRIGHTON AVE
SAN DIEGO, CA 92107
pdetwile@sunstroke.sdsu.edu

DEUTZMANN, HELMUT
PRINZIP & INNOVATION
HEINRICH-HEINE-STR. 9
LASTRUP, D-49688 GERMANY
p- +49-4472-947965; f- +49-4472-947965

DEVIN, MICHAEL G.
193 CLARK'S COVE ROAD
WALPOLE, ME 04573
p- 207-563-3146 X305; f- 207-563-3119; mdevin@maine.edu

DEWAEI, YANNICK
CATHOLIC UNIVERSITY OF LOUVAIN
LABORATORY ANIMAL PHYSIOLOGY
BATIMENT CARNOY, 5 PL CROIX DU SUD
LOUVAIN-LA-NEUVE 1348 BELGIUM
p- +32.10.47.34.75; f- +32.10.47.34.76; dewael@bani.ucl.ac.be

DIACANTONI, ANA MARCOPOULOU -
UNIVERSITY OF ATHENS
SUBFAC. SCIENCE OF EARTH
93 MARATHONODROMOU STR.
MAROUSSI, ATHENS 15125 GREECE

DIEHL, WALTER J.
MISSISSIPPI STATE UNIVERSITY
DEPT BIOLOGICAL SCIENCES, PO DRAWER GY
MISSISSIPPI STATE, MS 39762-5759
p- 662-325-7576; f- 662-325-7939; wjdiehl@ra.msstate.edu

DOBSON, WILLIAM E.
APPALACHIAN STATE UNIVERSITY
DEPT BIOLOGY
BOONE, NC 28608
p- 704-262-6910; f- 704-262-2127; dobsonwe@appstate.edu

DOI, TERUO
KYUSHU UNIVERSITY 33
DEPT BIOLOGY, FAC SCIENCE
HIGASHI-KU, FUKUOKA 812, JAPAN
p- 81-92-641-1101 ext 4419; f- 81-92-632-2741
tedoiscb@mbox.n.c.kyushu-u.ac.jp

DOLMATOV, IGOR Yu.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK, 690041 RUSSIA
p- (4232) 31-11-78; f- (4232) 310-900;
inmarbio@mail.primorye.ru OR iyudolm@yahoo.com

DOMINGUEZ ALONSO, PATRICIO
DEPARTMENT OF PALAEONTOLOGY
THE NATURAL HISTORY MUSEUM
CROMWELL ROAD
LONDON, SW7 5BD UNITED KINGDOM
p- 0044 2079425611; f- 0044 2079425546; patd@nhm.ac.uk OR
padomin@eucmax.sim.ucm.es

DONOVAN, STEPHEN K.
NATIONAL MUSEUM NATURAL HISTORY, NATURALIS
PO BOX 9517
LEIDEN 2300 RA, THE NETHERLANDS
Donovan@naturalis.nnm.nl

DORNBOS, STEPHEN Q.
UNIVERSITY OF SOUTHERN CALIFORNIA
DEPARTMENT EARTH SCIENCES
LOS ANGELES, CA 90089-0740
p- 213-740-5818; f- 213-740-8801; sdornbos@earth.usc.edu

DROZDOV, ANATOLY L.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
f- 4232-310-900; faribm@visenet.marine.su

DRUMM, DARRIN
UNIVERSITY OF OTAGO
DEPT MARINE SCIENCE
PO BOX 56
DUNEDIN NEW ZEALAND
p- (03) 479-7496; f- (03) 479-8336
druda019@student.otago.ac.nz

DRUMMOND, ANNE E.
UNIVERSITY OF NATAL
DEPT ZOOLOGY & ENTOMOLOGY
P BAG X01
SCOTTSVILLE 3209 SOUTH AFRICA
p- (0331) 260-5104; f- (0331) 260-5105
drummond@zoology.unp.ac.za

DUBOIS, PHILIPPE
UNIVERSITE LIBRE DE BRUXELLES
LABORATOIRE BIOL MARINE CP 160
AVE F.D. ROOSEVELT 50
BRUXELLES B-1050 BELGIUM
p- 32-2-650-2839; f- 32-2-650-2796; phdubois@ulb.ac.be

DUBOUCHET, ALEJANDRO
CENTER FOR MARINE CONSERVATION
1725 DESALES ST, SUITE 600, NW
WASHINGTON DC 20036
p- 202-429-5609 ext 260
dubouca@dccmc.mhs.compuserve.com

DUPONT, SAMUEL
UNIVERSITE CATHOLIQUE DE LOUVAIN
LABORATOIRE DE PHYSIOLOGIE ANIMALE
BATIMENT CARNOY, 5 PLACE CROIX DU SUD
LOUVAIN-LA-NEUVE, 1348 BELGIUM
p- (32) 10473472; f- (32) 10473476; dupont@bani.ucl.ac.be

DY, DANILO T.
UNIVERSITY OF SAN CARLOS
MARINE BIOLOGY SECTION
CEBU CITY 6000 PHILIPPINES
p- (32) 3461128 local 508; dydt@durian.usc.edu.ph

EAGLE, MIKE
AUCKLAND WAR MEMORIAL MUSEUM
NATURAL HISTORY, PRIVATE BAG 92018
AUCKLAND, NEW ZEALAND
p- 64 09 309 0443 OR 64 09 306 7070 ext.881; f- 64 09 379 9956
meagle@akmuseum.org.nz

EBERT, THOMAS A.
SAN DIEGO STATE UNIVERSITY
DEPT BIOLOGY
SAN DIEGO, CA 92182-4614
p- 619-595-5965; f- 619-594-5676; tebert@sunstroke.sdsu.edu

EBLE, GUNTHER J.
CNRS UMR 5561
BIOGEOSCIENCES
UNIVERSITE DE BOURGOGNE
DIJON 21000 FRANCE
Gunther.Eble@u-bourgogne.fr

ECKELBARGER, KEVIN
UNIVERSITY OF MAINE, DARLING MARINE CENTER
25 CLARK'S COVE ROAD
WALPOLE, ME 04573
p- 207-563-3146; f- 207-563-3119

ECKERT, JAMES D.
16 WEST HAMPTON RD
ST. CATHERINE'S
ONTARIO L2T 3E5 CANADA

EECKHAUT, IGOR
UNIVERSITE DE MONS-HAINAUT
LAB DE BIOLOGIE MARINE
19 AVE MAISTRIAU
7000 MONS, BELGIUM
p- 32-65-37-34-39; f- 32-65-37-34-34; biomarum@umh.ac.be

EERNISSE, DOUGLAS J.
CALIFORNIA STATE UNIVERSITY
DEPT BIOLOGICAL SCIENCES
FULLERTON, CA 92834-6850
deernisse@fullerton.edu

ELDREDGE, LUCIUS G.
PACIFIC SCIENCE ASSOCIATION
1525 BERNICE STREET
PO BOX 17801
HONOLULU, HI 96817-0801
p-808-848-4139; f- 808-847-8252; psa@bishop.bishop.hawaii.org

ELISEIKINA, MARINA G.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK, 690041 RUSSIA
p-(4232) 31-11-78; f-(4232) 310-900; inmarbio@mail.primorye.ru

ELLERS, OLAF W.
44 CAPT PERRY DR
PHIPPSBURG, ME 04562
p- 207-725-3808; f- 207-725-3405; oellers@polar.bowdoin.edu

EMERSON, CAROLYN J.
MEMORIAL UNIV OF NEWFOUNDLAND
BIOLOGY DEPARTMENT
ST. JOHN'S, NF A1B 3X9 CANADA

EMLET, RICHARD B.
UNIVERSITY OF OREGON
OREGON INST MARINE BIOLOGY
CHARLESTON, OR 97420
p- 541-888-2581 ext 211; f- 541-888-3250
remlet@oimb.uoregon.edu

EMSON, ROLAND
FRANKLIN-WILKINS BLDG
150 STAMFORD STREET
LONDON SE1 8WA ENGLAND UK
p- +44 171 848 4489; f- +44 171 848 4500
roland.emson@kcl.ac.uk

ENDELMAN, LEONID G.
PALEONTOLOGICAL INSTITUTE
RUSSIAN ACADEMY OF SCIENCES
PROFSOYUSNAYA UL.123
MOSCOW 117647 RUSSIA

ENGSTROM, NORMAN
NORTHERN ILLINOIS UNIVERSITY
COLLEGE LIBERAL ARTS & SCIENCES
OFFICE OF DEAN
DEKALB, IL 60115
p- 815-753-7960; f- 815-753-5904; t30enl1@corn.cso.niu.edu

ENTRAMBASAGUAS MONSELL, LAURA DE
DPTO ECOLOGIA & HIDROLOGIA
UNIV DE MURCIA, FAC BIOLOGIA
CAMPUS DE ESPINARDO
MURCIA 30100 SPAIN
p- 968-364985; lentram@fcu.um.es

ESCOUBET, P.
MARINELAND-AQUARIUMS
306 AVENUE MOZART
ANTIBES 06600 FRANCE

ESCRIBANO RODENAS, MARGARITA
UNIVERSIDAD COMPLUTENSE MADRID
DEPTO DE PALEONTOLOGIA
FAC DE CIENCIAS GEOLOGICAS
MADRID 28040 SPAIN
p- +34 91 3944856; f- +34 91 3944849
gilcid@eucmos.sim.ucm.es

ESTREMADURA, D. M.
UNIV PHILIPPINES-VISAYAS
COLLEGE OF ARTS AND SCIENCES
DIV BIOLOGICAL SCIENCES
MIAGAO, ILOILO, PHILIPPINES
p- +63 33 3159271; s3madura@popmail.i-next.net

ETNIER, SHELLEY A.
UNIV NORTH CAROLINA, WILMINGTON
601 S. COLLEGE RD
WILMINGTON, NC 28403-3297
p- 910-962-7266; f- 910-962-4066; etniers@uncwil.edu

ETTENSCHN, FRANK R.
UNIVERSITY OF KENTUCKY
DEPT GEOLOGICAL SCIENCES
101 SLONE BUILDING
LEXINGTON, KY 40506-0053
p- 859-257-6232; f- 859-233-1938; fettens@pop.uky.edu

EVDOKIMOV, VLADIMIR V.
TINRO - PACIFIC RESEARCH FISHERY CENTER
4 SHEVCHENKO ALLEY
VLADIVOSTOK 690600 RUSSIA
p- 7-4232-257783; f- 7-4232-259504; root@tinro.marine.su

FANKBONER, PETER V.
SIMON FRASER UNIVERSITY
DEPT BIOLOGICAL SCIENCES
BURNABY, BC V5A 1S6 CANADA
p- 604-291-4475

FARMANFARMAIAN, A. VERDI
DEPT CELL BIOL & NEUROSCIENCE
NELSON LABORATORIES
604 ALLISON ROAD
PISCATAWAY, NJ 08854-8082
p- 732-445-3118 ; f- 732-445-3118; farman@biology.rutgers.edu
OR vfarman@aol.com

FAUVILLE, GERALDINE
9 RUE GRAFFE
NAMUR 5000 BELGIUM
gfauville@hotmail.com

FAY, ROBERT O.
OKLAHOMA GEOLOGICAL SURVEY
ENERGY CENTER
100 E. BOYD, ROOM N 131
NORMAN, OK 73019-0628
p- 405-325-3031

FECHTER, HUBERT
ZOOLOGISCHE STAATSSAMMLUNG
MUNCHHAUSENSTR. 21
MUENCHEN 60, D-8000 GERMANY

FEDER, HOWARD M.
UNIV OF ALASKA, FAIRBANKS
INSTITUTE MARINE SCIENCE
FAIRBANKS, AK 99775
p- 907-474-7956; f- 907-474-7204; feder@ims.alaska.edu

FEINBERG, JOSHUA
DEPT EARTH & PLANETARY SCIENCE
UNIVERSITY CALIFORNIA, BERKELEY
307 McCONE HALL
BERKELEY, CA 94720
p- 510-643-4325; f- 510-643-9980
jmfeinbe@uclink.berkeley.edu

FELL, F. JULIAN
BOX 222
1555 WELLS PLACE
ERRINGTON, BC V0R 1V0 CANADA
p- 250-248-4295; f- 250-248-4295; jfell@macn.bc.ca

FERAL, JEAN-PIERRE
CNRS UMR 7628
OBSERVATOIRE OCEANOLOGIQUE
BP 44
BANYULS-SUR-MER CEDEX 66651 FRANCE
p- +33 468887318; f- +33 468887383; feral@obs-banyuls.fr

FERBER, ILANA
7 MOSHE HESS ST
JERUSALEM 94 185 ISRAEL

FERGUSON, JOHN C.
ECKERD COLLEGE
BOX 12560
ST. PETERSBURG, FL 33733
p- 813-864-8441; f- 813-864-7964; fergusjc@eckerd.edu

FERNANDEZ, CATHERINE
EQUIPE ECOSYSTEMES LITTORAUX (EQEL)
UNIV DE CORSE, UFR DES SCIENCES, BP 52
CORTE, F-20250 FRANCE
p- 33 (0)4 95 45 00 48; f- 33 (0)4 95 46 24 41
cfernan@univ-corse.fr

FERRAZ, ROGERIO R.
DEPT OCEANOGRAPHY & FISHERIES
CAIS DE SANTA CRUZ
HORTA 9901-862 PORTUGAL
p- +351 292 292 988; f- +351 292 292 659
ferraz@dop.uac.pt

FERRIER, DREW
HOOD COLLEGE
DEPT BIOLOGY
FREDERICK, MD 21701
p- 301-696-3660; f- 301-696-3667; dferrier@hood.edu

FIERRO, JUAN F.T.
MUSEO DE HISTORIA NATURAL DE CONCEPCION
CASILLA 1054
CONCEPCION, CHILE

FISHELSON, LEV
TEL-AVIV UNIVERSITY
DEPT ZOOLOGY
155 HERZL ST
TEL-AVIV, ISRAEL
p- 972-3-6409812; f- 972-3-6409403

FLAMMANG, PATRICK
UNIVERSITY OF MONS-HAINAUT
MARINE BIOLOGY LABORATORY
PENTAGONE 2B, 6 AVE DU CHAMPS DE MARS
B-7000 MONS, BELGIUM
p- +32-65-373439; f- +32-65-373434
patrick.flammang@umh.ac.be

FLOWERS, JONATHAN
UNIVERSITY CALIFORNIA, SAN DIEGO
SCRIPPS INSTITUTION OF OCEANOGRAPHY
9500 GILMAN DR, MAIL CODE 0208
LA JOLLA, CA 92093-0208
jmflower@insci14.ucsd.edu

FOLLOSCO, MINDA P.
DE LA SALLE UNIVERSITY
MAR BIOL STA - COLLEGE OF SCIENCE
2401 TAFT AVE, BOX 3819
MANILA 1004, PHILIPPINES
p- (+63-2) 524-04-51; f- (+63-2) 524-04-51
cosmpf@mail.dlsu.edu.ph

FOLTZ, DAVID W.
LOUISIANA STATE UNIVERSITY
DEPT BIOLOGICAL SCIENCES
RM 508 LIFE SCIENCES BLDG
BATON ROUGE, LA 70803-1715
p- 225-578-1737; f- 225-578-2597; dfoltz@lsu.edu

FONTANELLA, FRANK M.
DEPARTMENT BIOLOGICAL SCIENCES
BOX 870345
THE UNIVERSITY OF ALABAMA
TUSCALOOSA, AL 35487-0345
p- 205-348-5844; fonta001@bama.ua.edu

FOSSHAGEN, HARALD
FJELLVEIEN 13
BERGEN, 5030 NORWAY
p- 55950513; f- 53432146
harald.fosshagen@student.uib.no

FOSTER, MERRILL W.
BRADLEY UNIVERSITY
DEPT GEOLOGICAL SCIENCES
1501 WEST BRADLEY AVE
PEORIA, IL 61625-0427
p- 309-677-2352; f- 309-677-2330; drobb@bradley.edu

FOUDA, MOUSTAFA
AL-ASHAR UNIVERSITY
DEPT ZOOLOGY
NASIR-CITY
CAIRO, EGYPT

FOX, DAVID J.
UNIV TENNESSEE, KNOXVILLE
DIVISION BIOLOGY
M303 WALTERS LIFE SCI BLDG
KNOXVILLE, TN 37996-0830
p- 423-974-2978; f- 423-974-4057; djfox@utk.edu

FRANCOUR, PATRICE
LAB ENVIRONNEMENT MARIN LITTORAL
FACULTE DES SCIENCES
PARC VALROSE
NICE CEDEX 2, 06108 FRANCE
p- 33 4 92 07 68 32; f- 33 4 92 07 68 49; francour@unice.fr

FRANKLIN, JUAN T. FIERRO
MUSEO REGIONAL DE CONCEPCION
CASILLA 1054
CONCEPCION, CHILE

FRANKLIN, SUE
SYDNEY UNIVERSITY
ZOOLOGY DEPARTMENT A08
SYDNEY, NSW 2006 AUSTRALIA

FRANZEN, CHRISTINA A.M.
SWEDISH MUSEUM NAT HIST
DEPT PALAEOZOOLOGY, BOX 50007
STOCKHOLM, S-10405 SWEDEN
p- +46-8-5195-4177; f- +46-8-5195-4184
christina.franzen@nrm.se

FREEMAN, STEVEN M.
THE CENTRE FOR ENVIRONMENT, FISHERIES
& AQUACULTURE SCIENCE (CEFAS)
LOWESTOFT LABORATORY, PAKEFIELD ROAD
LOWESTOFT, SUFFOLK, NR33 0HT ENGLAND UK
p- 01502-524249; f- +44(0) 1502 513865
s.m.freeman@cefasc.co.uk

FREST, TERENCE
2517 NORTHEAST 65TH ST
SEATTLE, WA 98115-7125

FRONTANA URIBE, SARITA CLAUDIA
INST CIENC DEL MAR Y LIMNOL, UNAM
LAB DE ECOLOGIA DE EQUINODERMOS
APDO POST 70-305
MEXICO D.F. 04510 MEXICO
p- 525-622-58-02; f- 525-616-07-48
frontana@mar.icmyl.unam.mx OR sarahfront@hotmail.com

FRYE, BRIAN
CALIFORNIA ACADEMY OF SCIENCES
INVERTEBRATE ZOOLOGY & GEOLOGY
GOLDEN GATE PARK
SAN FRANCISCO, CA 94118-4599
echinoids@mindspring.com

FUJITA, TOSHIHIKO
NATIONAL SCIENCE MUSEUM
DEPT ZOOLOGY
HYAKUNIN-CHO 3-23-1
TOKYO 169-0073 JAPAN
p- +81 3 3364 7121; f- +81 3 3364 7104; fujita@kahaku.go.jp

FUKUYAMA, ALLAN K.
7019 157th ST SW
EDMONDS, WA 98026
p- 206-745-3349; f- 206-745-3349

GAGE, JOHN D.
SCOTTISH ASSOC MARINE SCIENCE
PO BOX 3
OBAN ARGYLL, PA34 4AD SCOTLAND UK
p- 0044(0) 1631 567821; f- 0044(0) 1631-565518
jdg@wpo.nerc.ac.uk

GAGNON, JEAN-MARC
CANADIAN MUSEUM OF NATURE
CHIEF OF INVERTEBRATE COLLNS
PO BOX 3443, STATION D
OTTAWA ONTARIO, K1P 6P4 CANADA
p- 613-364-4066; f- 613-364-4027 jmgagnon@mus-nature.ca

GAHN, FOREST
2810 STRATFORD AVE, APT 4
CINCINNATI, OH 45220
fjg@geology.byu.edu

GALAZYN, SHERRY
1-57 TISBURY RD
HOVE EAST, SUSSEX BN 33B-L ENGLAND UK
sherryg@mit.edu

GALLEMI, JAUME
MUSEU DE GEOLOGIA, KEEPER OF PALEONTOLOGY
PARC DE LA CIUTADELLA SN
BARCELONA, 08003 SPAIN
p- +34+93-3196895 or 3104299; f- +34+93-3199312
jgallemi@cc.uab.es

GALLEY, ELIZABETH
DEEPSEAS BENTHIC BIOLOGY GROUP
SOUTHAMPTON OCEANOGRAPHY CENTRE
EMPRESS DOCK, EUROPEAN WAY
SOUTHAMPTON SO14 3ZH ENGLAND UK
p- +44 (0) 2380 586264; eag1@soc.soton.ac.uk

GANDOLFI, SILVIA MARIA
DEPTO DE ECOLOGIA GERAL, IB
UNIVERSIDADE DE SAO PAULO
CAIXA POSTAL 11461
SAO PAULO, SP 05.422-970 BRAZIL
p- 55 11 6818 7529; f- 55 11 6813 4151; smg@ib.usp.br

GARRISON, ROBERT D.
11 UNION STREET
NANTUCKET, MA 02554
p- 508-825-9291; f- 508-825-9291; rdg@nantucket.net

GEBRUK, ANDREY V.
P.P. SHIRSHOV INST OCEANOLOGY
RUSSIAN ACADEMY OF SCIENCES
NAKHIMOVSKY PR., 36
MOSCOW 117218 RUSSIA
p- +7 095 129 21 18; f- +7 095 124 59 83
mironov@bentos.ioras.msk.ru

GENTIL, FRANCK A.
UNIVERSITE PARIS 6
STATION BIOLOGIQUE BP74
ROSCOFF, F-29682 FRANCE
p- (33)98.29.23.15; f- (33)98.29.23.24; gentil@sb-roscoff.fr

GEORGE, SOPHIE B.
GEORGIA SOUTHERN UNIV
BIOLOGY DEPT
LANDRUM BOX 8042
STATESBORO, GA 30460-8042
p- 912-681-0599; f- 912-681-0845; georges@gsaix2.cc.gasou.edu

GERONIMO, ABELARDO L.
DE LA SALLE UNIVERSITY
DEPT BIOLOGY
2401 TAFT AVENUE
MANILA 1004 PHILIPPINES

GHYOOT, MARIANNE
UNIVERSITE LIBRE DE BRUXELLES
LABORATOIRE BIOL MARINE CP 160
AVE F.D. ROOSEVELT 50
BRUXELLES, B-1050 BELGIUM

GIBBS, BARBARA R.
SENIOR TAXONOMIST
BARRY A. VITTOR & ASSOCIATES
8060 COTTAGE HILL RD
MOBILE, AL 36695
p- 334-633-6100; f- 334-634-5179; bvatata@bvaenviro.com

GIBSON, MICHAEL A.
THE UNIVERSITY OF TENNESSEE
DEPT GEOLOGY GEOGRAPHY & PHYSICS
222 EPS BUILDING
MARTIN, TN 38238-5039
p- 901-587-7435; f- 901-587-7434; mgibson@utm.edu

GIELAZYN, MICHEL L.
MARINE RESOURCES RESEARCH INST
217 FORT JOHNSON RD
CHARLESTON, SC 29412
p- 843-762-5653; f- 843-762-5110; gielazyn@sc.edu

GIL CID, MARIA DOLORES
UNIVERSIDAD COMPLUTENSE MADRID
DEPTO DE PALEONTOLOGIA
FAC DE CIENCIAS GEOLOGICAS
MADRID, 28040 SPAIN
p-+34 91 3944856; f- +34 91 3944849; gilcid@eucmos.sim.ucm.es

GINANOVA, TALIA T.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK, 690041 RUSSIA
p- (4232) 31-11-78; f- (4232) 310-900
inmarbio@mail.primorye.ru

GIORDANO DE FREITAS, SOLANGE
MUSEU NACIONAL QUINTA DA BOA
VISTA/UFRJ, DEPTO INVERTEBR
SAO CRISTOVAO, RJ 20942 BRAZIL

GIRASPY, D.A. BENI
BIOLOGY DEPT, MAJEEDIYYA SCHOOL
PO BAG 81
AMEER AHMED MAGU, MALE, REPUBLIC OF MALDIVES
reefside@hotmail.com

GIUDICE, GIOVANNI
DIPARTIMENTO DI BIOLOGIA
CELLULARE E DELLO SVILUPPO
VIALE DELLE SCIENZE
PALERMO 90128 ITALY
p- ++39-091-424786; f- ++39-091-420897; giudice@unipa.it

GIULIANO, LAURA
UNIVERSITY OF MESSINA
DEPT ANIMAL BIOLOGY & ECOLOGY
S. TA SPEORNE, 31
MESSINA 98166 ITALY
p- ++39 090 6765528; f- ++39 090 393409
Laura.Giuliano@unime.it

GLENN, KRITON C.
MARINE AND WATER DIVISION
MARINE PROTECTED AREAS
ENVIRONMENT AUSTRALIA
CANBERRA, ACT, 2600 AUSTRALIA
p- +61 2 6274 1528; f- +61 2 6274 1771
Kriton.Glenn@ea.gov.au

OR

GLENN, MARINE, KRITON C.
NORTH WEST SHELF PROJECT
PETROLEUM AND MARINE DIVISION
AGSO GPO BOX 378
CANBERRA, ACT, 2601 AUSTRALIA
p- +61 2 6249 9379; f- +61 2 6249 9980
Kriton.Glenn@agso.gov.au

GLUCHOWSKI, EDWARD L.
UNIVERSITY OF SILESIA
DEPT PALEONTOLOGY & STRATIGRAPHY
BEDZINSKA STR 60
41-200 SOSNOWIEC POLAND
p- +48 32 291 8381 (433); f- +48 32 291 5865
egluchow@wnoz.us.edu.pl

GLYNN, PETER W.
RSMAS, UNIVERSITY OF MIAMI
4600 RICKENBACKER CAUSEWAY
MIAMI, FL 33149
p- 305-361-4151

GOETZL, ANGELIKA
UNIVERSITY OF SALZBURG
DEPT ANALYTICAL CHEMISTRY
HELLBRUNNERSTR 34
SALZBURG 5020 AUSTRIA
p- ++43/662/8044-5605; f- ++43/662/8044-5751
angelika_goetzl@hotmail.com

GOGGIN, LOUISE C.
CSIRO MARINE LABORATORIES
GPO BOX 1538
HOBART, TAS 7001 AUSTRALIA
p- 61-3-6232-5101; f- 61-3-6232-5485
louise.goggin@marine.csiro.au

GOLDBERG, ARTHUR S.
SOUTHAMPTON COLLEGE
OF LONG ISLAND UNIVERSITY
DIVISION NATURAL SCIENCES
SOUTHAMPTON, NY 11968
p- 516-287-8406; f- 516-287-4094

GOLDEN, JULIA
UNIVERSITY OF IOWA
DEPT GEOLOGY
CURATOR PALEONTOLOGIC COLLN
121 TROWBRIDGE HALL
IOWA CITY, IA 52242-1379
p- 319-335-1822; f- 319-335-1821; j-golden@uiowa.edu

GOLDSCHMID, ALFRED G.
UNIVERSITY SALZBURG
INSTITUT ZOOLOGY
HELLBRUNNERSTRASSE 34
SALZBURG A-5020 AUSTRIA
p- 0043 662-8044 5605; f- 0043 662-8044 5698
alfred.goldschmid@sbg.ac.at

GONGADZE, GURAM
TBILISI STATE UNIVERSITY
DEPT GEOLOGY & PALEONTOLOGY
CHAVCHAVADZE AVE 1
TBILISI 380028 GEORGIA
p- +995-32-221103; f- +995-32-221103
erekle@tsuio.edu.ge

GONZALEZ, DUNIA NATALIA
AA 1016 INVEMAR
CERRO DE PUNTA BETIN
SANTA MARTA, COLOMBIA
dngonzalez@invemar.org.co

GONZALEZ PELAEZ, SERGIO SCARRY
UNIV AUTONOMA DE BAJA CALIFORNIA SUR
CARRETERA AL SUR KM 5.5
DEPTO BIOLOGIA MARINA, AP-19b
LA PAZ, BAJA CALIFORNIA SUR, CP 23080 MEXICO
sergioscarry@yahoo.com.mx

GOODING, RICHARD U.
19 HIGHGATE PARK
ST. MICHAEL, BH10, BARBADOS, WEST INDIES
p- 809-427-9436

GORCHAKOV, IGOR A.
PETROSAVODSK STATE UNIVERSITY
DEPT ZOOLOGY
RIGACHIN STR. 26-84
PETROSAVODSK, KARELIA 185005 RUSSIA
svalan@research.karelia.ru

GOUVEIA-MONTEIRO, ANA MARIA
IBILCE - UNESP
DEPTO ZOOLOGIA
CAIXA POSTAL 136
SAO JOSE DO RIO PRETO, SP 15054-000 BRAZIL
p- 0172-24-4966; f- 0172-24-8692
anamaria@condor.polo.ibilce.unesp.br

GRABOWSKY-KAAIALI, GAIL L.
CHAMINADE UNIVERSITY, DEPT BIOLOGY
3140 WAIALAE AVE
HONOLULU, HI 96816-1578
p- 808-735-4834; gkaaiali@chaminade.edu

GRANGE, KEN R.
NZ OCEANOGRAPHIC INSTITUTE
PO BOX 14901
KILBIRNIE, WELLINGTON, NEW ZEALAND

GRAS, HERIBERT
UNIV KOLN, ZOOLOGICAL INSTITUTE
WEYERTAL 119
5000 KOLN 41, GERMANY

GREENSTEIN, BENJAMIN J.
CORNELL COLLEGE
DEPT GEOLOGY
600 FIRST ST WEST
MT VERNON, IA 52314
p- 319-895-4307; f- 319-895-5667 bgreenstein@cornell-iowa.ed

GREENWOOD, AMY
AQUAFAC INTERNATIONAL SERVICES
12 KILKERRIN PARK
LIOSBAUN, TUAM ROAD
GALWAY, IRELAND
amy_g73@hotmail.com

GREGORY, BRIAN D.
1124 PENNSYLVANIA AVE
BREMERTON, WA 98337
p- 360-377-8704; smilodon1@earthlink.net

GRENOBLE, MUSEUM DE
1 RUE DOLOMIEU
GRENOBLE, 38000 FRANCE

GROSJEAN, PHILIPPE
UNIVERSITE LIBRE DE BRUXELLES
MARINE BIOLOGY LABORATORY CP 160/15
AVE F.D. ROOSEVELT 50
BRUXELLES, B-1050 BELGIUM
p- 02/650.29.70; f- 02/650.27.96; phgrosje@ulb.ac.be

GROVES, CATHY
NATURAL HISTORY MUSEUM L.A. COUNTY
ECHINODERMS SECTION
900 EXPOSITION BLVD
LOS ANGELES, CA 90007
p- 213-744-3527; f- 213-746-2999; cgroves@lam.mus.ca.us

GRUZOV, E.N.
ZOOLOGICAL INSTITUTE
ACADEMY OF SCIENCES
LENINGRAD 199164 RUSSIA

GRYGIER, MARK J.
LAKE BIWA MUSEUM
OROSHIMO 1091
KUSATSU, SHIGA, 525-0001 JAPAN
p- +81-77-568-4829; f- +81-77-568-4850 grygier@lbnm.go.jp

GUDMUNDSSON, JON EGGERT
MIDVANGUR 41
220 HAFNARFJORDUR, ICELAND
p- 898-5740; midvangur@islandia.is

GUENSBURG, THOMAS E.
ROCK VALLEY COLLEGE
PHYSICAL SCIENCE DIVISION
3301 N. MULFORD ROAD
ROCKFORD, IL 61101
f- 815-654-4438

GUILLOU, MONIQUE
LABORATOIRE LEMAR
INST UNIVERSITAIRE EUROPEEN DE LA MER
PLACE NICOLAS COPERNIC
PLOUZANE, 29480 FRANCE
p- 33 (0)2 49 86 34; f- 33 (0)2 49 86 45; mguillou@univ-brest.fr

GUISADO ARANGUIZ, CHITA B.
UNIVERSIDAD CATOLICA DEL NORTE
DEPARTAMENTO DE BIOLOGIA MARINA
CASILLA 117
COQUIMBO, CHILE

GURREA, ISIDRO
BLESIA 43, 1-1
BARCELONA, 08004 SPAIN
p- (34)93.442.51.42; f- (34)93.454.18.01; igurrea@alehop.com OR
igurrea@eresmas.com

GUTIERREZ, JUAN E.
UNIVERSIDAD DE CHILE
INSTITUTO INVEST. OCEANOLOGIAS
CASILLA 1240
ANTOFAGASTA, CHILE

GUTT, JULIAN
ALFRED WEGENER INSTITUTE FOR
POLAR AND MARINE RESEARCH
COLUMBUSSTRASSE
BREMERHAVEN D-27568 GERMANY
p- +49 (0)471-4831 1333; f- +49 (0)471-4831 1149
jgutt@awi-bremerhaven.de

HADEL, VALERIA FLORA
CEBIMar-USP
UNIVERSIDADE DE SAO PAULO
C.P. 83
SAO SEBASTIAO-SP, 11600-970 BRAZIL
p- +55 12 462-6455; f- +55 12 462-6646; vafnadel@usp.br

HAGEN, NILS T.
BODO COLLEGE
DEPT FISHERIES & NAT SCI
N-8002 BODO, NORWAY
p- 47-75-51-73-55; f- 47-75-51-73-49; Nils.Hagen@hibo.no

HALL, ROSEMARY
MARINE SCIENCE PROGRAM
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SC 29208
p- 803-777-3939; rhall@biol.sc.edu

HAMADA, SPENCER
WEST GEORGIA COLLEGE, BIOLOGY DEPT
CARROLLTON, GA 30118

HAMEL, JEAN-FRANCOIS
SOCIETY FOR EXPLORATION & VALUING
OF THE ENVIRONMENT (SEVE)
655 RUE DE LA RIVIERE
KATEVALE, QUEBEC, J0B 1W0 CANADA
p- 819-843-3466; f- 819-843-3466; seve@sympatico.ca

HAMMER, HUGH
UNIV OF ALABAMA AT BIRMINGHAM
DEPT BIOLOGY
1300 UNIVERSITY BLVD
BIRMINGHAM, AL 35294-1170
p- 205-934-8313; f- 205-975-6097; hshammer@uab.edu

HAMZA HASSAN, MOHAMED
NATL INST OCEANOGR & FISHERIES
RED SEA AND SUEZ CANAL BRANCH
PO BOX 182, SUEZ, EGYPT
p- 064 228862

HAND, CLAUDIA
PACIFIC BIOLOGICAL STATION
NANAIMO, BC V9R 5K6 CANADA
HandC@pac.dfo-mpo.gc.ca

HARMELIN, JEAN-GEORGES
STATION MARINE D'ENDOUME
13007 MARSEILLE FRANCE

HARPER, FIONA M.
DALHOUSIE UNIVERSITY
DEPT BIOLOGY
HALIFAX, NS B3H 4J1 CANADA
p- 902-494-6665; f- 902-494-3736; fharp@is2.dal.ca

HARRIS, LARRY G.
UNIV NEW HAMPSHIRE, ZOOLOGY DEPT
DURHAM, NH 03824
p- 603-862-3897; f- 603-862-3784; lharris@christa.unh.edu

HART, MICHAEL
DALHOUSIE UNIVERSITY
DEPT BIOLOGY
HALIFAX, NS B3H 4J1 CANADA
p- 902-494-6665; f- 902-494-3736
michael.hart@is2.dal.ca

HAUDE, REIMUND
INST GEOL & PALAONT
GOLDSCHMIDT-STR 3
GOTTINGEN D-37077 GERMANY
p- +49-551-397957; f- +49-551-397996
rhaude@uni-goettingen.de

HAVARDSSON, BJORGOLFUR
UNIVERSITY OF BERGEN
DEPT FISHERIES & MARINE BIOLOGY
BERGEN HIGH TECHNOLOGY CENTER
BERGEN, 5020 NORWAY
p- 47-55544496; f- 47-55544450
bjorgolfur.havardsson@ifm.uib.no

HAY, MARK E.
GEORGIA INSTITUTE OF TECHNOLOGY
SCHOOL OF BIOLOGY
ATLANTA, GA 30332-0230
p- 404-894-8429; f- 404-894-0519 mark.hay@biology.gatech.edu

HAYASHI, HIROSHI
NAGOYA UNIVERSITY
SUGASHIMA MARINE BIOL LAB
SUGASHIMA
TOBA, MIE 517 JAPAN

HECKER, R. T.
PALEONTOLOGICAL INSTITUTE
ACADEMY OF SCIENCE USSR
LENINSKY PROSPECT 33
MOSCOW V-71 RUSSIA

HEDDLE, DUNCAN
UNIVERSITY OF ABERDEEN
DEPARTMENT OF ZOOLOGY
TILLYDRONE AVE
ABERDEEN, AB9 2TN SCOTLAND UK
p- 1224-272888; f- 1224-272396

HEINZELLER, THOMAS E.
UNIVERSITY OF MUNICH
DEPT. NEUROANATOMY
PETTENKOFERSTRASSE 11
MUNICH D-80336 GERMANY
p- 49-89-51-60-48-64; f- 49-89-51-60-48-57
heinzell@anat.med.uni-muenchen.de

HELLER, JAMES A.
THE UNIVERSITY OF TENNESSEE
DEPT GEOLOGICAL SCIENCES
KNOXVILLE, TN 37921

HENDLER, GORDON
L.A. COUNTY MUSEUM, NAT HIST, LIFE SCIENCES
900 EXPOSITION BLVD
LOS ANGELES, CA 90007
p- 213-763-3526; f- 213-746-2999; hendler@bcf.usc.edu OR
hendler@nhm.org

HENKEL, TIMOTHY
CENTER FOR MARINE SCIENCE
5600 MARVIN MOSS LN
WILMINGTON, NC 28409
p- 910-962-2378; f- 910-962-2410; henkelt@uncwil.edu

HERDENDORF, CHARLES E.
OHIO STATE UNIVERSITY
ZOOLOGY DEPT
1507 CLEVELAND ROAD EAST, #410
HURON, OH 44839-9725
p- 419-433-3266; f- 419-433-3266; herdendorf.1@osu.edu

HERRERA, JOAN
UNIVERSITY OF FLORIDA
DEPARTMENT OF ZOOLOGY
GAINESVILLE, FL 32611
herrera@zoo.ufl.edu

HERRINGSHAW, LIAM
PALAEOBIOLOGY RESEARCH GROUP
SCHOOL OF EARCH SCIENCES
UNIVERSITY OF BIRMINGHAM
BIRMINGHAM, WEST MIDLANDS B15 2TT ENGLAND UK
p- (+44) (0)121 414 3486; LGH865@bham.ac.uk

HESS, HANS
IM GERSTENACKER 8
CH-4102 BINNINGEN, SWITZERLAND
p- (061) 421-4221; f- (061) 421-4253; hans.hess@bluewin.ch

HEUER, ARTHUR H.
CASE WESTERN RESERVE UNIVERSITY
DEPT MATERIALS SCI & ENGINEERING, RM 508
10900 EUCLID AVE
CLEVELAND, OH 44106-7204
p- 216-368-3868; f- 216-368-8932; ahh@po.cwru.edu

HICKMAN, JR., CLEVELAND P.
WASHINGTON AND LEE UNIVERSITY
DEPT BIOLOGY
LEXINGTON, VA 24450-0303
p- 540-463-8896; f- 540-462-6153; hickman.c@rockbridge.net

HIDAKA, MICHIO
UNIVERSITY OF THE RYUKYUS
COLLEGE OF SCIENCE, DEPT BIOLOGY
SENBARU 1, NISHIHARA-CHO
OKINAWA 903-01 JAPAN

HIGHSMITH, RAYMOND C.
UNIVERSITY OF ALASKA
INSTITUTE OF MARINE SCIENCES
FAIRBANKS, AK 99775-7220
p- 907-474-7836; f- 907-474-5804; highsmith@ims.alaska.edu

HILBUN, NANCY L.
5757 S STAPLES #1106
CORPUS CHRISTI, TX 78413
nlh70570@kestrel.tamucc.edu

HILGERS, HELGE
INSTITUT FUR ZOOLOGIE
UNIVERSITAT WIEN
ALTHANSTRASSE 14
WIEN A-1090 AUSTRIA
Helge.Hilgers@univie.ac.at

HILL, ROBERT B.
DEPT BIOLOGICAL SCIENCES
UNIV RHODE ISLAND
KINGSTON, RI 02881-0816
p- 401-874-2669; f- 401-874-4256; BOB@uri.edu

HIMMELMAN, JOHN H.
UNIVERSITE LAVAL
DEPARTMENT DE BIOLOGIE
QUEBEC, G1K 7P4 CANADA
p- 418-656-5230; f- 418-656-2339;
john.himmelman@bio.ulaval.ca

HOBBERG, MAX K.
UNIVERSITY OF ALASKA FAIRBANKS
INSTITUTE MARINE SCIENCE
FAIRBANKS, AK 99775-1080
p- 907-474-7066; f- 907-474-7204; fnmkh@uaf.edu

HODGSON, ALAN N.
RHODES UNIVERSITY
DEPT ZOOLOGY & ENTOMOLOGY
PO BOX 94
GRAHAMSTOWN 6140, SOUTH AFRICA
p- (+46) 6038526; f- (+46) 6224377; A.Hodgson@ru.ac.za

HOEKSEMA, BERT W.
NATIONAL MUSEUM NATURAL HISTORY, NATURALIS
PO BOX 9517
LEIDEN 2300 RA, THE NETHERLANDS
p- +31.71.5687631; f- +31.71.5687666
Hoeksema@Naturalis.nnm.nl

HOFFMAN, JENNIFER
FRIDAY HARBOR LABORATORIES
620 UNIVERSITY RD
FRIDAY HARBOR, WA 98250
p- 206-543-1484; f- 206-543-1273; hoffrau@u.washington.edu

HOGGETT, ANNE
LIZARD ISLAND RESEARCH STATION, PMB 37
CAIRNS, QUEENSLAND, 4870 AUSTRALIA
p- +61(0)7 4060 3977; f- +61(0)7 4060 3977
lizard@amsg.austmus.gov.au

HOLTERHOFF, PETER F.
UNIVERSITY OF ARIZONA
DEPT GEOSCIENCES, GOULD-SIMPSON BLDG
TUCSON, AZ 85721
p- 520-621-4618; f- 520-621-2672; holterho@ccit.arizona.edu

HOOD, SARAH C.
PO BOX 14502
RENO, NV 89507-4502
p- 702-827-1883; hood@med.unr.edu

HOOPER, ROBERT G.
MEMORIAL UNIVERSITY, NF
DEPARTMENT OF BIOLOGY
ST. JOHN'S, NF A1B 3X9 CANADA
p- 709-737-7494; f- 709-737-3018; rhooper@morgan.ucs.mun.ca

HOPKINS, THOMAS S.
ALABAMA MUSEUM OF NATURAL HISTORY
425 SCIENTIFIC COLLECTIONS BUILDING
BOX 870345, THE UNIVERSITY OF ALABAMA
TUSCALOOSA, AL 35487-0345
p- 205-348-1791; f- 205-348-6460; thopkins@biology.as.ua.edu

HORSFALL, IAN M.
DEPT MARINE SCIENCES & COASTAL
MANAGEMENT, RIDLEY BLDG
UNIVERSITY OF NEWCASTLE
NEWCASTLE UPON TYNE, NE1 7RU ENGLAND, UK
p- 44(0)191 222 6661; f- 44(0)191 222 7891
i.m.horsfall@ncl.ac.uk

HORSTMAN, DEON
MARINE & COASTAL MANAGEMENT
PRIVATE BAG X2, ROGGEBAAI
CAPE TOWN 8012 SOUTH AFRICA
p- 021 4307002; f- 021 4342899; horstman@sfri.wcape.gov.za

HOSHI, MOTONORI
CENTER LIFE SCIENCE & TECHNOLOGY
KEIO UNIVERSITY
3-14-1 HIYOSHI, KOUHOKU-KU
YOKOHAMA 223-8522, JAPAN
p- +81-45-566-1773; f- +81-45-566-1448;
mhoshi@chem.keio.ac.jp

HOTCHKISS, FREDERICK H.C.
26 SHERRY ROAD
HARVARD, MA 01451
p- 800-225-8330 EXT 138; f- 617-899-1552
hotchkissf@panametrics.com

HOTTENROTT, SUSAN I.
SMITHSONIAN INSTITUTION
NAT. MUSEUM OF NATURAL HISTORY
ROOM W319, MAIL STOP 163
WASHINGTON, DC 20560-0163
p- 202-786-2578; f- 202-357-3043; sih@gwis2.circ.gwu.edu

HOWELL, KERRY
DEEPSEAS BENTHIC BIOLOGY GROUP
SOUTHAMPTON OCEANOGRAPHY CENTRE
EMPRESS DOCK, EUROPEAN WAY
SOUTHAMPTON, SO14 3ZH ENGLAND UK
p- +44 (0) 2380 586264; kez1@mail.soc.soton.ac.uk

HSUEH, PAN-WEN
NAT'L MUSEUM NATURAL SCIENCE, INVERT ZOO
1 KUAN CHIEN RD.
TAICHUNG, TAIWAN
p- 04-322-6940; f- 04-322-2290

HUNTER, MARGARET A.
DEPT MARINE RESOURCES
FISHERIES LABORATORY, PO BOX 8
WEST BOOTHBAY HARBOR, ME 04575
p- 207-633-9541; f- 207-633-9579
Margaret.Hunter@state.me.us

HUSEYINOGLU, FATIH
35 CASWELL ST
NARRAGANSETT, RI 02882
fateaux@yahoo.com

ILAN, MICHA
TEL AVIV UNIVERSITY, DEPT ZOOLOGY
TEL AVIV, 69978 ISRAEL
p- +972-3-6408613; f- +972-3-6409403 milan@ccsg.tau.ac.il

IRIMURA, SEIICHI
NATIONAL SCIENCES MUSEUM, TOKYO
DEPT ZOOLOGY
3-23-1 HYAKUNINCHO, SHINJUKU-KU
TOKYO 169-0073, JAPAN
p- 81-3-3364-2311; f- 81-3-3364-7104 irimura@fz.dion.ne.jp

ISAEVA, VALERIA V.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK, 690041 RUSSIA
f- 4232-310-900; faribm@visenet.marine.su

ISHIDA, YOSHIKI
CHITOSEGAOKA HIGH SCHOOL
FUNABASHI 3-18-1, SETAGAYA-KU
TOKYO 156-0055, JAPAN
p- 3 3429-7271; f- 3 3429-2441; y-ishida@msi.biglobe.ne.jp

IVY, GRISILDA
FISHERIES SCIENCE TEACHER
AMINIYA SCHOOL
MALE, REPUBLIC OF MALDIVES
ivygrisilda@hotmail.com

JABLONSKI, DAVID
UNIVERSITY OF CHICAGO
DEPT. GEOPHYSICAL SCIENCES
5734 S. ELLIS AVENUE
CHICAGO, IL 60637
p- 312-702-8163; f- 312-702-9505
djablons@midway.uchicago.edu

JACKSON, JENNIFER
ZOOLOGY DEPT
UNIVERSITY OF OXFORD
SOUTH PARKS RD
OXFORD, OX1 3PS ENGLAND, UK
p- 01865 281987; jennifer.jackson@linacre.ox.ac.uk

JACOB, UTE
GNEISENAUSTRASSE 38
BREMEN, 28201 GERMANY
p- 0421/5578821; ujacob5346@aol.com

JACOBS, CASIMIRA
51 8TH AVENUE
SEA CLIFF, NY 11579
casimiraj@aol.com

JACOBSEN, NANCY A.
MONTEREY BAY AQUARIUM RESEARCH INST
P.O. BOX 628
MOSS LANDING, CA 95039-0628
p- 408-775-1718; f- 408-775-1718; jana@mbari.org

JAECKLE, WILLIAM B.
ILLINOIS WESLEYAN UNIVERSITY
DEPT BIOLOGY
PO BOX 2900
BLOOMINGTON, IL 61702
p- 309-556-3779; f- 309-556-3864; wjaeckle@titan.iwu.edu

JAGT, JOHN W.M.
NATUURHISTORISCH MUSEUM MAASTRICHT
DE BOSQUETPLEIN 6-7
PO BOX 882
NL-6200 AW MAASTRICHT, THE NETHERLANDS
p- +31 43-350 5479; f- +31 43-350 5475; mail@nhmmaastricht.nl

JAMES, DANIEL B.
NO.13 BHARATHIAR STREET
METHA NAGAR
CHENNAI, 600029 INDIA
p- +91-044-3745351; baskar_james@yahoo.com OR
baskar_james@hotmail.com

JAMES, DAVID W.
4873 NIAGARA AVE, #5
SAN DIEGO, CA 92107
p- 619-225-0314; f- 619-225-0340; dave@vividline.com

JAMIESON, GLEN S.
PACIFIC BIOLOGICAL STATION
FISHERIES RESEARCH BRANCH
NANAIMO, B.C., V9R 5K6 CANADA
p- 604-756-7223; f- 604-756-7138; jamiesong@pbs.dfo.ca

JANGOUX, MICHEL
UNIVERSITE LIBRE DE BRUXELLES
LABORATOIRE BIOL. MARINE CP 160
AVE F.D. ROOSEVELT 50
BRUXELLES, B-1050 BELGIUM
mjangoux@ulb.ac.be

JANIES, DANIEL A.
AMERICAN MUSEUM OF NATURAL HISTORY
DEPARTMENT OF INVERTEBRATES
CENTRAL PARK WEST AT 79TH STREET
NEW YORK, NY 10024-5192
p- 212-769-5639; f- 212-769-5783; djanies@amnh.org

JARAMILLO, EDUARDO
UNIVERSIDAD AUSTRAL DE CHILE
INSTITUTO DE ZOOLOGIA
CASILLA 567
VALDIVIA, CHILE

JEAL, FRANK
TRINITY COLLEGE
ZOOLOGY DEPARTMENT
DUBLIN 2, IRELAND

JEFFERIES, RICHARD P. S.
THE NATURAL HISTORY MUSEUM
DEPT PALEONTOLOGY
CROMWELL ROAD
LONDON, SW7 5BD ENGLAND, UK
p- 0044 0207 942 5014; f- 0044 0207 942 5546
r.jefferies@nhm.ac.uk

JEFFERY, CHARLOTTE H.
THE NATURAL HISTORY MUSEUM
DEPT PALAEONTOLOGY
CROMWELL ROAD
LONDON, SW7 5BD ENGLAND UK
p- 0171-938-9228; f- 0171-938-9277; chj@nhm.ac.uk

JELL, PETER A.
QUEENSLAND MUSEUM
PO BOX 3300
SOUTH BRISBANE, QLD 4101 AUSTRALIA
p- 61 7 3840-7664; f- 61 7 3846-1918; peter.jell@qm.qld.gov.au

JELLETT, JOANNE F.
47 WAKE UP HILL ROAD
RR#1, CHESTER BASIN
NOVA SCOTIA B0J 1K0 CANADA
jbiotek@atcon.com

JEYABASKARAN, R.
BIOL OCEANOGR DIV
NAT'L INST OCEANOGRAPHY
DONA PAULA, GOA, 403 004 INDIA
p- 91(0)832 221322 ext 4252; f- 91(0)832 223340
jaybas@darya.nio.org

JOHNSEN, SONKE
UNIV NORTH CAROLINA, CHAPEL HILL
DEPT BIOLOGY
CB#3280, COKER HALL
CHAPEL HILL, NC 27599-3280
p- 919-962-5017; f- 919-962-1625; sonkejo@email.unc.edu

JOHNSON, CRAIG R.
UNIVERSITY OF TASMANIA
SCHOOL OF ZOOLOGY & (TAFI)
GPO BOX 252-05
HOBART, TAS 7001 AUSTRALIA
p- (613) 6226-2582 or (03) 6226 2615; f- (613) 6226 2745

JOHNSON, SHERI
3-6014 SHIRLEY STREET
HALIFAX, NS B3H 4J1 CANADA
p- 902-429-6743; sljohnso@is2.dal.ca

JONES, IRA
CALIFORNIA STATE UNIVERSITY
DEPARTMENT OF BIOLOGY
LONG BEACH, CA 90840

JUNIO-MENEZ, ANNETTE R.
MARINE SCIENCE INSTITUTE
UNIVERSITY OF THE PHILIPPINES
BOX 1, DILIMAN
QUEZON CITY 1101 PHILIPPINES
p- 632-922-3921; f- 632-924-7678; meneza@msi.upd.edu.ph

JUNQUEIRA, ANDREA O.R.
UNIV FEDERAL DO RIO DE JANEIRO
DEPT BIOLOGIA MARINHA, CCS Bl. A
RIO DE JANEIRO, RJ, 21949-900 BRAZIL
p- 55 21-527 8152; f- 55 21 280 2394; ajunq@acd.ufrj.br

KAMMER, THOMAS W.
WEST VIRGINIA UNIVERSITY
DEPT GEOLOGY & GEOGRAPHY
PO BOX 6300
MORGANTOWN, WV 26506-6300
p- 304-293-5603 ext 4331; f- 304-293-6522; tkammer@wvu.edu

KAO, M. H.
MEMORIAL UNIV OF NEWFOUNDLAND
DEPARTMENT OF BIOLOGY
ST. JOHN'S
NEWFOUNDLAND A1B 3X9 CANADA

KASYANOV, VLADIMIR L.
INSTITUTE MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK, 690041 RUSSIA
p- 7(4232) 310905; f- 7(4232) 310900; aisa@vld.global-one.ru

KATSURA, SHIGERU
TOKUSHIMA UNIVERSITY
SCHOOL OF DENTISTRY
ORAL ANATOMY
TOKUSHIMA, JAPAN

KAWAMURA, KAZUHIRO
HOKKAIDO CENTRAL FISHERIES
EXPERIMENTAL STATION
YOICHI, HOKKAIDO, JAPAN
p- 81-135-23-8202; f- 81-135-23-8202;
k.kawamura@econixe.co.jp

KAWAUCHI, GISELE YUKIMI
INSTITUTO DE BIOCENCIA - USP
DEPARTAMENTO DE ZOOLOGIA
C.P. 11461
SAO PAULO - SP 05422-970 BRAZIL
p- (011) 8187575; f- (011) 8187416; ykawauch@usp.br

KEEGAN, BRENDAN F.
UNIVERSITY COLLEGE
DEPARTMENT OF ZOOLOGY
GALWAY, IRELAND
p- 91-24411; f- 91-25700; brendan.keegan@ucg.ie

KEESING, JOHN K.
DIV RESEARCH & DEVELOPMENT
MURDOCH UNIVERSITY
SOUTH STREET
MURDOCH WA 6150 AUSTRALIA
p- (61-8) 9360 2574; f- (61-8) 9360 6686
jkeesing@central.murdoch.edu.au

KELLER, BRIAN D.
FLORIDA KEYS NATL MARINE SANCTUARY
PO BOX 500368
MARATHON, FL 33050
p- 305-743-2437 x25; f- 305-743-2357; brian.keller@noaa.gov

KELLEY, L. SCOTT
6936 LOMO ALTO
FORT WORTH, TX 76132
p- 817-346-7964; echinotx@ev1.net

KELLY, MAEVE S.
SCOTTISH ASSOC. MARINE SCIENCE
DUNSTAFFNAGE MARINE LAB
PO BOX 3
OBAN, ARGYLL, PA34 4AD SCOTLAND, UK
p- +44 1631 567 833; f- +44 1631 565 518; mke@dml.ac.uk

KELLY, STUART M.
7224 16TH AVENUE
TAKOMA PARK, MD 20912

KELSO, DONALD
GEORGE MASON UNIVERSITY
DEPARTMENT OF BIOLOGY
4400 UNIVERSITY DRIVE
FAIRFAX, VA 22030

KEOUGH, M. J.
UNIVERSITY OF MELBOURNE
ZOOLOGY DEPARTMENT
ADELAIDE, S.A. AUSTRALIA

KERR, ALEXANDER M.
UNIVERSITY OF CALIFORNIA
DEPT ECOLOGY, EVOLUTION & MARINE BIOLOGY
SANTA BARBARA, CA 93106
p- 805-893-2764; a_kerr@lifesci.ucsb.edu

KIKUCHI, TAIJI
KYUSHU UNIVERSITY
AMAKUSA MARINE BIOLOGICAL LAB
TOMIOKA, REIHOKU CHO
AMAKUSA, KUMAMOTO 863-25 JAPAN

KINJO, SONOKO
459 SHIRAHAMA
WAKAYAMA, 649-2211 JAPAN
p- 81-739-42-3515; f- 81-739-42-4518

KLIKUSHIN, VLADIMIR
PETERSBURG PALEONTOLOGICAL LAB
8 LINE 19, NO. 3
ST. PETERSBURG 199034 RUSSIA
p- 218-65-97

KLINGER, THOMAS S.
BLOOMSBURG UNIVERSITY
DEPARTMENT OF BIOLOGY
400 E. SECOND STREET
BLOOMSBURG, PA 17815-1301
p- 717-389-4118; f- 717-389-3028; tklinger@bloomu.edu

KNOTT, K. EMILY
UNIVERSITY OF JYVASKYLA
DEPT BIOLOGICAL & ENVIRONMENTAL SCI
EVOLUTIONARY ECOL RES UNIT PO BOX 35
JYVASKYLA, 40351 FINLAND
p- 358 (0) 14 260-2307; f- 358 (0) 14 260-2321; kknott@cc.jyu.fi

KOBAYASHI, NAOMASA
26, KAMITAKANO-MOROKICHO
SAKYO-KU
KYOTO, 6060046 JAPAN
p- 075-791-7062; f- 075-791-7062

KOGO, ICHIZO
10-17 IKEDAMINAMIMACHI
NEYAGAWA CITY, OSAKA 572-0034 JAPAN
p- 81-720-29-4114; f- 81-720-29-4114; kogo@pearl.ocn.ne.jp

KOGURE, YOICHI
JAPAN SEA NATL FISHER RES INST
SUIDO-CHO 1-5939-2
NIIGATA CITY, 951-8121 JAPAN
p- +81 25 228 0655; f- +81 25 224 0950; seastar@jsnf.affrc.go.jp

KOJIMA, MANABU
TOYAMA UNIVERSITY
DEPARTMENT OF BIOLOGY
GOFUKU 3190
TOYAMA SHI/KEN 930, JAPAN

KOLATA, DENNIS R.
ILLINOIS STATE GEOLOGICAL SURV
BASIN ANALYSIS & GEOPHYSICS SEC
615 EAST PEABODY DRIVE
CHAMPAIGN, IL 61820-6964
p- 217-244-2189; f- 217-333-2830; kolata@geoserv.isgs.uiuc.edu

KOMATSU, MIEKO
TOYAMA UNIVERSITY
DEPARTMENT OF BIOLOGY
FACULTY OF SCIENCE
3190 TOYAMA 930, JAPAN
p- 96-445-6632; f- 76-445-6549; miekok@scil.sci.toyama-u.ac.jp

KRISHNAN, MARY BAI
MARINE BIOLOGICAL STATION
ZOOLOGICAL SURVEY OF INDIA
12, LEITHCASTLE STREET
MADRAS 28, INDIA

KRISHNARAJAH, PADMINI
UNIVERSITY OF JAFFNA
DEPARTMENT OF ZOOLOGY
JAFFNA, SRI LANKA
p- 021-2685; f- 021-2294; zoology@net.panlanka

KROH, ANDREAS
INST GEOLOGY & PALAEOLOGY
KARL-FRANZENS-UNIV GRAZ
HEINRICHSTR. 26
GRAZ A-8100 AUSTRIA
p- 0043/316/380/5580; f- 0043/316/380/9871 discometra@gmx.at

KROHLING, WERTHER
LUCIO BACELAR ST
402 - PRAIA DA COSTA
VILA VELHA
ESPIRITO SANTO, 29101030 BRAZIL
p- 27 2294940; f- 27 3295666; wkro@zaz.com.br

KROLL, DIETER K.
INSTITUT FUR OKOLOGIE ABT HYDROBIOLOGIE
POSTFACH 103764
ESSEN 45117 GERMANY
p- 0201-183-3209; f- 0201-183-2529

KUSHLINA, VERONIKA B.
PALEONTOLOGICAL INSTITUTE
PROFSOJUZNAYA UL. 123
GSP-7 V-321
MOSCOW 1171868 RUSSIA

KYTE, MICHAEL A.
GOLDER ASSOCIATES
18300 NE UNION HILL RD, SUITE 200
REDMOND, WA 98052-3333
p- 425-883-0777; f- 425-882-5498; mkyte@golder.com

LaBARBARA, MICHAEL
THE UNIVERSITY OF CHICAGO
DEPARTMENT OF ANATOMY
1025 EAST 57th STREET
CHICAGO, IL 60637

LACEY, KATRINA
MARTIN RYAN INSTITUTE
UNIVERSITY COLLEGE GALWAY
NEWCASTLE ROAD
GALWAY, IRELAND

LAGUARDA FIGUERAS, ALFREDO
INST CIENC DEL MAR Y LIMNOL, UNAM
LAB DE ECOLOGIA DE EQUINODERMOS
APDO. POST. 70-305
MEXICO, D.F., 04510 MEXICO
p- 525-622-58-02; f- 525-616-07-48

LAHAYE, MARIE-CHRISTINE
UNIVERSITE LIBRE DE BRUXELLES
LABORATOIRE BIOL. MARINE CP 160
AVE F.D. ROOSEVELT 50
BRUXELLES, B-1050 BELGIUM

LAMBERT, PHILIP
ROYAL BRITISH COLUMBIA MUSEUM
NATURAL HISTORY SECTION
675 BELLEVILLE ST
VICTORIA, BC V8W 9W2 CANADA
p- (250) 387-6513; f- (250) 356-8197
PLambert@royalbcmuseum.bc.ca

LANDEIRA FERNANDEZ, ANA MARIA
CENT DE CIENC DA SAUDE, CIDADE UNIV
DEPTO MEDICAL BIOCHEMISTRY
BL E-SL 38
RIO DE JANEIRO, CEP, 21941-590 BRAZIL
p- (5521) 270-1635; f- (5521) 270-8647
landeira@server.bioqmed.ufrj.br

LANE, DAVID J.W.
DEPT BIOLOGY
UNIVERSITI BRUNEI DARUSSALAM
JALAN TUNGKU LINK
GADONG BE 1410 BRUNEI
p- 673 2 249001 ext 378; f- 673 2 249502;
davelane@fos.ubd.edu.bn OR **david_jwlane@hotmail.com**

LANE, N. GARY
INDIANA UNIVERSITY
DEPT GEOLOGICAL SCIENCES
1005 EAST TENTH STREET
BLOOMINGTON, IN 47405
p- 812-855-7994; f- 812-855-7899; **lane@indiana.edu**

LARRAIN, ALBERTO P.
UNIVERSIDAD DE CONCEPCION
DEPARTAMENTO DE BIOLOGIA
CASILLA 2407
CONCEPCION, CHILE
p- 56-234985; f- 56-240280; **alarrain@halcon.dpi.udec.cl**

LAWLEY, JERRY L.
15010 LEEWARD DR, APT 803
CORPUS CHRISTI, TX 78418
p- 580-221-1462; **jlawley@simplynet.net**

LAWRENCE, ANDREW
UNIVERSITY OF HULL
DEPT BIOLOGICAL SCIENCES
COTTINGHAM ROAD
HULL HU6 7RX ENGLAND UK
p- 44 1482 465506; f- 44 1482 465458
a.j.lawrence@biosci.hull.ac.uk

LAWRENCE, JOHN M.
UNIV OF SOUTH FLORIDA
DEPARTMENT OF BIOLOGY
4202 EAST FOWLER AVE, LIF 136
TAMPA, FL 33620-5150
p- 813-974-2549; f- 813-974-3263; **lawr@chuma.cas.usf.edu**

LAZARUS, JUAN FELIPE
CRA 85 C#45-82
CALI, VALLE DEL CAUCA, COLOMBIA
p- (57+2) 6821371; **lazajuan@univalle.edu.co**

LE MENN, JEAN
LAB PALEONTOLOGIE ET STRATIGRAPHIE
DU PALEOZOIQUE -UFR SCIENCES
BP809, 6 AV LE GORGEU
BREST CEDEX, 29287 FRANCE
p- 33-02-98-01-61-89; f- 33-02-98-01-66-20
jean.le-menn@univ-brest.fr

LECLERC, MICHAEL
ORLEANS UNIVERSITY
BIOLOGY DEPT, UER SCIENCES
ORLEANS, 45045 FRANCE

LEE, YOUN-HO
POLAR RESEARCH CENTER
KOREA OCEAN RESEARCH & DEVELOPMENT INST
ANSAN PO BOX 29
KYUNGGI-DO 425-600 SOUTH KOREA
p- 345-400-6428; f- 345-408-5825; **ylee@kordi.re.kr**

LEFEBVRE, BERTRAND Y.J.
UMR "DOMAINES OCEANIQUES", PALEONTOLOGIE
UNIV BRETAGNE OCCIDENTALE
6 AVE LE GORGEU BP 809
BREST CEDEX F-29285 FRANCE
p- 02.98.01.62.89; f- 02.98.01.66.20;
bertrand.lefebvre@univ-brest.fr

LEIBSON, NINA L.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
f- 4232-310-900; **faribm@visenet.marine.su**

LEISMAN, JULIANNE
FLORIDA INST TECHNOLOGY, DEPT BIOL SCI
150 W UNIVERSITY BLVD
MELBOURNE, FL 32901-6988

LELAND, AMANDA
DARLING MARINE CENTER
193 CLARKS COVE RD
WALPOLE, ME 04573
p- 207-563-3146 ext 275; Amanda.Leland@umit.maine.edu

LEMBO, LUIZ
UNICAMP
DEPTO DE ZOOLOGIA - INST BIOLOGIA
C.P. 6109
CAMPINAS - SP, 13083-970 BRAZIL

LESSER, MICHAEL P.
UNIVERSITY OF NEW HAMPSHIRE
DEPT ZOO & CENTER FOR MAR BIOL
SPAULDING LIFE SCIENCE BUILDING
DURHAM, NH 03824-3544
p- 603-862-3442; f- 603-862-3784; mpl@christa.unh.edu

LESSIOS, HARILAOS A.
SMITHSONIAN TROP RESEARCH INST
UNIT 0948, APO AA
MIAMI, FL 34002-0948
p- 507-212-8708; f- 507-212-8790; lessiosh@naos.si.edu

LEVIN, VALERY S.
KamchatNIRO
NABEREZHNYAYA STR, 18
PETROPAVLOVSK-KAMCHATSKY, 683002 RUSSIA
p- (415-22)2-59-55; f- (415-22)2-37-05
mail@kamniro.kamchatka.ru

LEVINGS, C. D.
PACIFIC ENVIRONMENT INSTITUTE
4160 MARINE DRIVE
WEST VANCOUVER, BC V7V1N6 CANADA

LEVITAN, DONALD R.
FLORIDA STATE UNIVERSITY
DEPT BIOLOGICAL SCIENCE, B-142
TALLAHASSEE, FL 32306-2043
p- 904-644-2524; f- 904-644-9829; levitan@irisl.sb.fsau.edu

LEWIS, DAVID N.
THE NATURAL HISTORY MUSEUM
DEPT PALAEONTOLOGY
CROMWELL ROAD
LONDON SW7 5BD ENGLAND UK
p- (0207)-942-5128; f- (0207)-942-5546; dnl@nhm.ac.uk

LHEKNIM, VACHIRA
PRINCE OF SONGKLA UNIVERSITY
DEPT BIOLOGY
PO BOX KO HONG
SONGKHLA, 90112 THAILAND
Ivachira@ratree.psu.ac.th

LIAO, YULIN
ACADEMIA SINICA
INSTITUTE OF OCEANOLOGY
7 NANHAI ROAD
QINGDAO 266071 PEOPLE'S REPUBLIC OF CHINA
p- 532-2887292; f- 532-2870882

LIBRARY
UNIVERSITY OF CINCINNATI
GEOLOGY DEPT, OLD TECH BLDG
CINCINNATI, OH 45221

LIBRARY
HOPKINS MARINE STATION
of STANFORD UNIVERSITY
PACIFIC GROVE, CA 93950-3094

LIBRARY, RSMAS
UNIVERSITY OF MIAMI
4600 RICKENBACKER CAUSEWAY
MIAMI, FL 33149
p- 305-361-4021; f- 305-361-9306; library@rsmas.miami.edu

LIBRARY, THE GUNTER
GULF COAST RESEARCH LABORATORY
PO BOX 7000, 703 EAST BEACH DRIVE
OCEAN SPRINGS, MS 39566-7000
joyce.shaw@usm.edu

LIBRARY REFERENCES,
FLORIDA ATLANTIC UNIVERSITY
777 GLADES ROAD
BOCA RATON, FL 33431

LINDSTROM, DAWN
HOOD COLLEGE
401 ROSEMONT AVENUE
FREDERICK, MD 21701
p- 301-696-3652; lindstrom@hood.edu

LITVINOVA, NINA M.
RUSSIAN ACADEMY OF SCIENCES
P.P. SHIRSHOV INST OCEANOLOGY
NAKHIMOVSKYI PROSPEKT 36
MOSCOW, 117851 RUSSIA
p- 095-129-21-18; f- (095) 124-59-83; ophiura@mail.ru

LORDSON, JINBERT
TRC OF CMFRI
90 NORTH BEACH ROAD
TUTICORIN, TAMIL NADU 628 001 INDIA
p- 91-20102

LOVELY, ERIC C.
UNIVERSITY OF NEW HAMPSHIRE
DEPARTMENT ZOOLOGY
SPAULDING LIFE SCIENCE BUILDING
DURHAM, NH 03824-3544
p- 603-743-4585; ecl@christa.unh.edu

LUBCHENCO, JANE
OREGON STATE UNIVERSITY
DEPARTMENT ZOOLOGY, CORDLEY 3029
CORVALLIS, OR 97331
lubchenj@bcc.orst.edu

LYONS, KERRY M.
MAINE DEPT OF MARINE RESOURCES
WEST BOOTHBAY HARBOR, ME 04575
p- 207-633-9510; f- 207-633-9579; kerry.lyons@state.me.us

MACURDA, JR., D. BRADFORD
THE ENERGISTS
10260 WESTHEIMER, SUITE 300
HOUSTON, TX 77042
p- 713-781-6881; f- 713-781-2998; brad@energists.com

MACZYNSKA, STEFANIA S.
UL.CZERNIAKOWSKA 20 M 121
WARSZAWA 00-714 POLAND

MAGNIEZ, PIERRE
MUSEUM D'HISTOIRE NATURELLE
LAB BIOL INVERTEBRES MARINES
55 RUE DE BUFFON
PARIS 75005 FRANCE

MAGSINO, RICHARD M.
MARINE SCIENCE INSTITUTE
UNIVERSITY OF THE PHILIPPINES
BOX 1
DILIMAN, QUEZON CITY 1101 THE PHILIPPINES
p- 0632-9223959; f- 0632 9247678; rickym@upmsi.ph

MAH, CHRISTOPHER L.
UNIVERSITY OF ILLINOIS
DEPT GEOLOGY, 245 NHB
1301 W GREEN ST
URBANA, IL 61801
p- 217-333-4963; f- 217-244-4996; mah@uiuc.edu

MAHARAVO, JEAN
CENTRE NATIONAL DE RECHERCHES
D'OCEANOGRAPHIQUES - DIRECTOR
B.P. 68
(207) NOSY-BE, MADAGASCAR
p- 19.261.8.613.73

MAIER, MARTA S.
UNIV BUENOS AIRES, FAC CIENC EX Y NAT
DEPTO QUIMICA ORGANICA
PABELLON 2, CID UNIVERSITARIA
BUENOS AIRES 1428 ARGENTINA
p- 00541-782-0529; f- 00541-782-0529
maier@quimor.qo.fcen.uba.ar

MAJEROWICZ, EUGENE I.
4449 PRESIDIO DRIVE
LOS ANGELES, CA 90008
p- 323-291-1833

MALAY, MARIA CELIA
MARINE SCIENCE INSTITUTE
UNIVERSITY OF THE PHILIPPINES
BOX 1, DILIMAN
QUEZON CITY 1101 PHILIPPINES
f- 632-924-7678; machel@upmsi.ph

MALDONADO, ELISA M.
543 DALEHURST AVE
LOS ANGELES, CA 90024
p- 310-474-4717; emala@ucla.edu

MALLEFET, JEROME C.
CATHOLIC UNIVERSITY OF LOUVAIN
LAB ANIMAL PHYSIOLOGY
5 PL CROIX DU SUD
LOUVAIN-LA-NEUVE B-1348 BELGIUM
p- +32 10 47 8750; f- +32 10 47 3476; mallefet@bani.ucl.ac.be

MANCHENKO, GENNADY P.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
f- 4232-310-900; faribm@visenet.marine.su

MANIKANDAN K.P.,
(MAILING ADDRESS)
PLOT NO 31, JEGATHA ILLAM
13 NEHRUJI STREET, TIRUNAGAR
MADURAI, TAMILNADU 625006 INDIA
p- 0091-452-885713; f- 0091-452-882614
manikandaan@hotmail.com

MANIKANDAN K.P.,
(no postal service)
MAIS MARINE SEACUCUMBER RESEARCH CENTRE
BANDAVERI, RAA ATOLL, REPUBLIC OF MALDIVES
p- 0091-452-885713; f- 0091-452-882614

MANNI, RICCARDO
UNIV DEGLI STUDI DI ROMA "LA SAPIENZA"
DIP. DI SCIENZE DELLA TERRA
P.LE A. MORO, 5
ROME, 00185 ITALY
p- +39-6-49914315; f- +39-6-4454729
riccardo.manni@uniroma1.it

MANNIFIELD, KAY
38 HEATOR LANE
UPPER CUMBERWORTH
HUDDERSFIELD
WEST YORKSHIRE HD8 8XJ GREAT BRITAIN UK
kmannifield@netscapeonline.co.uk

MANSO, CYNTHIA L.C.
FUNDACAO PALEONTOLOGIA PHOENIX
RUA GERALDO MENEZES DE CARVALHO
218, SUISSA
ARACAJU, SERGIPE 49050-750 BRAZIL
p- 55 (079) 217-5655; mmarchioro@uol.com.br

MAPLES, CHRISTOPHER G.
INDIANA UNIVERSITY
DEPT GEOLOGICAL SCIENCES
1001 E 10TH ST
BLOOMINGTON, IN 47405
p- 812-855-5581; f- 812-855-7899; cmaples@indiana.edu

MARAN, ALEKSANDRA A.
NATURAL HISTORY MUSEUM
NJEGOSEVA 51
BELGRADE 11000 YUGOSLAVIA
p- 381-11-444-22-39; f- 381-11-444-22-63

MARCOS-DIEGO, CONCEPCION
UNIVERSIDAD DE MURCIA
DEPARTAMENTO DE ECOLOGIA
FACULTAD DE BIOLOGIA
MURCIA 30100 SPAIN
p- 34-68-833000; f- 34-68-363963

MARCUS, SARA A.
INDIANA UNIVERSITY
DEPT GEOLOGICAL SCIENCES
1001 E 10TH ST
BLOOMINGTON, IN 47405
p- 812-855-3536; samarcus@indiana.edu

MARKOV, ALEXANDER V.
PALEONTOLOGICAL INSTITUTE
OF RUSSIAN ACADEMY OF SCIENCES
PROFSOYUZNAYA STR. 123
MOSCOW 117647 RUSSIA
p- +7 095 952 4006; f- +7 095 954 3815; pbul@paleo.msk.ru

MARKS, JESSICA
UNIVERSITY OF BERGEN
DEPT ZOOLOGY, ALLEGT 41
BERGEN 7000 NORWAY
p-(47) 55 58 35 92; f- (47) 55 58 96 73; jessica.marks@zoo.uib.no

MARQUARDT, LUCIE
ALFRED WEGENER INSITUTE
FOR POLAR & MARINE RESEARCH
COLUMBUSSTRASSE
BREMERHAVEN 27568 GERMANY
p- +49(0) 471/4831-1316; f- +49(0) 471/4831-1149
lmarquardt@awi-bremerhaven.de

MARSH, LOISETTE M.
WESTERN AUSTRALIAN MUSEUM
DEPT AQUATIC ZOO, MAR INVERTS
FRANCIS STREET
PERTH, WESTERN AUSTRALIA 6000 AUSTRALIA
p- (08) 9427 2768; f- (08) 9427 2882

MARSHALL, CHARLES
UNIVERSITY OF CALIFORNIA
DEPARTMENT OF EARTH & PLANETARY SCIENCES
LOS ANGELES, CA 90024
iashcrm@mvs.oac.ucla.edu

MARTIN, RICHARD B.
CENTRE RESEARCH INTRODUCED MARINE PESTS
CSIRO MARINE RESEARCH
GPO BOX 1538, HOBART
TASMANIA 7001 AUSTRALIA
p- +61 3 6232 5371; f- +61 3 6232 5485
dick.martin@marine.csiro.au

MARTINEZ, PRISCILLA C.
CHARLES DARWIN RESEARCH STATION
P.O. BOX 17-01-3891
QUITO ECUADOR
p- 593-5-526-147; f- 593-4-564-636; martinez@ecdarwin.org.ec

MARTINEZ, SERGIO
DPTO PALEONTOLOGIA, INGEPA
FACULTAD DE CIENCIAS, IGUA 4225
MONTEVIDEO 11400 URUGUAY
p- (598-2) 5258618/23 int 170; f- (598-2) 5258617
smart@fcien.edu.uy

MARTINS DELBONI, CYNTHIA
CEBIMar-USP, CP 103
SAO SEBASTIAO SP 11600-970 BRAZIL
p- +55 12 462-6455; f- +55 12 462-6646 cydelbon@zaz.com.br

MASCARENHAS, BERNARDO JOSE DE A.
ESTRADA VALENCA
RIO DAS FLORES 7080
VALENCA, RIO DE JANEIRO 27600-000 BRAZIL
bemas@acd.ufrj.br

MASHANOV, VLADIMIR S.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK, 690041 RUSSIA
p- (4232) 31-11-78; f- (4232) 310-900
inmarbio@mail.primorye.ru

MASON, JOANNE C.
1 LLANCAYO PARK
BARGOED
MID-GLAMORGAN CF81 8TS SOUTH WALES UK
J.C.Mason@plymouth.ac.uk OR dolphi5678@aol.com

MASSIN, CLAUDE
INST ROYAL SCIENCES NATURELLES DE BELGIQUE
RUE VAUTIER 29
1000 BRUXELLES BELGIUM
p- 021.627.43.47; f- 021.627.41.41; massin@kbinirsnb.be

MASTROTOTARO, FRANCESCO
UNIVERSITY BARI, DEPT BIOLOGIA
VIA ORABONA 4
BARI 70125 ITALY
p- 00390805443350; f- 00390805443350
f.mastrototaro@biologia.uniba.it

MATA PEREZ, EUSTOLIA
INST CIENC DEL MAR Y LIMNOL, UNAM
LAB DE ECOLOGIA DE EQUINODERMOS
APDO. POST. 70-305
MEXICO D.F., 04510 MEXICO
p- 525-622-58-02; f- 525-616-07-48 mpe@hp.fcencias.unam.mx

MATERIA-ROWLAND, CHRISTINE J.
COASTAL AND MARINE PROGRAM
DEPT ENVIRONMENT & LAND MANAGEMENT
GPO BOX 510E
HOBART, TASMANIA 7001 AUSTRALIA
p- +61-02-33-3742; f- +61-02-34-8730; christr@delm.tas.gov.au

MATERIA-ROWLAND, CHRISTINE J.
MARINE & COASTAL RESEARCH TASMANIA
PO BOX 188
SANDY BAY, TASMANIA, 7006 AUSTRALIA
p- +61-3-6267-4302; f- +61-3-6267-4133 mcrt@tassie.net.au

MATIAS, MIGUEL
RUA DA ARQUINHA, 92
9500 PONTA DELGADA
S. MIGUEL-AZORES, PORTUGAL
miguelmatias@hotmail.com

MATTOS-SEGOVIA, ELIO
UNIVERSIDAD ARTURO PRAT
DEPARTAMENTO DE INGENIERIA
CASILLA 121
IQUIQUE, CHILE
p- 56-057-447070; f- 56-057-441009

MATURO, JR., FRANK
UNIVERSITY OF FLORIDA
ZOOLOGY DEPARTMENT
GAINESVILLE, FL 32611

MAUBON, ROGER M.
MUSEUM D'HISTOIRE NATURELLE
CHEMIN DE LA SOURCE, DEPT PALEO
CIDEX 429B
ST. ISMIER, 38330 FRANCE
p- 04-76-52-05-66

MAY, ABDEIGHAFOUR
3 SIMMBILAWIN STREET
CAMPSHEZAR
ALEXANDRIA, EGYPT
p- 0020123320650; **may_alex2000@hotmail.com**

MAYTIA, LIC SUSANA
MUSEO NACIONAL DE HISTORIA NAT, CC399
MONTEVIDEO, URUGUAY

McALOON, KELLY
PO BOX 204
SOLOMONS, MD 20688
mcaloon@cbl.umces.edu

McBRIDE, SUSAN C.
UC SEA GRANT EXTENSION PROGRAM
SUITE 4
2 COMMERCIAL STREET
EUREKA, CA 95501
p- 707-443-8369; f- 707-445-3901; **scmcbride@ucdavis.edu**

McCLINTOCK, JAMES B.
UNIV OF ALABAMA AT BIRMINGHAM
SCHOOL NAT SCI & MATHEMATICS
UAB STATION
BIRMINGHAM, AL 35294-1170
p- 205-934-8659; f- 205-975-6111; **mcclinto@uab.edu**

McEACHERN, RICHARD
71 WORCESTER ST, #2
BOSTON, MA 02118
p- 617-375-0097; **rickgmc3@email.msn.com**

McEUEEN, F. SCOTT
9302 205TH AVE E
BONNEY LAKE, WA 98390
p- 253-862-7451; **smceuen@juno.com**

McGEE, PAULA E.
MILWAUKEE PUBLIC MUSEUM
DEPT. OF GEOLOGY
800 WEST WELLS STREET
MILWAUKEE, WI 53233-1478

MCGOVERN, TAMARA
FLORIDA STATE UNIVERSITY
DEPT BIOL SCI
TALLAHASSEE, FL 32306-1100
p- 850-644-2678; f- 850-644-9829; **mcgovern@bio.fsu.edu**

McINTOSH, GEORGE CLAY
ROCHESTER MUSEUM & SCIENCE CTR
657 EAST AVE, PO BOX 1480
ROCHESTER, NY 14620

McKENZIE, J. DOUGLAS
INTEGRIN ADVANCED BIOSYSTEMS LTD.
MARINE RESOURCE CENTRE
BARCALDINE
OBAN, ARGYLL PA37 1SH SCOTLAND UK
p- +44 1631 720765; f- +44 1631 720590; **dmck@integrin.co.uk**

McKINNEY, MICHAEL
UNIVERSITY OF TENNESSEE
DEPT. GEOLOGY
KNOXVILLE, TN 37966

McKNIGHT, DONALD
N.Z. OCEANOGRAPHIC INSTITUTE
PO BOX 14901
KILBIRNIE, WELLINGTON, NEW ZEALAND
p- 4-386-1189; f- 4-386-2153

McLELLAND, JERRY A.
USM INSTITUTE OF MARINE SCIENCES
GULF COAST RESEARCH LABORATORY
PO BOX 7000
OCEAN SPRINGS, MS 39566
p-228-872-4214; f- 228-872-4204
jmclell@seahorse.ims.usm.edu

McNAMARA, KENNETH J.
WESTERN AUSTRALIAN MUSEUM
EARTH & PLANETARY SCIENCES
FRANCIS STREET
PERTH, WA 6000 AUSTRALIA
p- +61 8 9427 2755; f- +61 8 9427 2882
mcnamk@museum.wa.gov.au

MEDEIROS-BERGEN, DOT E.
BOSTON UNIVERSITY
BOSTON, MA
p- 617-353-2878; f- 617-353-5868

MEDRANO, SONIA
DIVISION DE ACUICULTURA
BALMACEDA 252
PUERTO MONTT, CHILE
p- (56-65) 250085--26995-264697; f- (56-65) 262961
smedrano@ifop.cl

MEIDEL, SUSANNE
DARLING MARINE CENTER
UNIVERSITY OF MAINE
193 CLARKS COVE ROAD
WALPOLE, ME 04573
p- 207-563-3146 ext. 286; f- 207-563-8407; meidel@maine.edu

MEIJER, LAURENT
CNRS
STATION BIOLOGIQUE, BP 74
ROSCOFF CEDEX 29682 FRANCE
p- 33 (0) 2.98.29.23.39; f- 33 (0) 2.98.29.23.42
meijer@sb-roscoff.fr

MELIKOV, OKTAY HAMZA
AZERBAIJAN STATE OIL ACADEMY
AZERBAIJAN INSTITUTE OF OIL & CHEMISTRY
AZADLG AVE 20
BAKU 370010 AZERBAIJAN
p- (99412) 93-45-57; f- (994)-12-930 806; melickov@usa.net

MENDES, CARLA LIMA TORRES
RUA IPANEMA 151
APTO 102 BARRA DA TIJUCA
RIO DE JANEIRO, RJ 22631-390 BRAZIL
p- (21) 3325-5986; carlamendes@rjnet.com.br

MENGE, BRUCE A.
OREGON STATE UNIVERSITY
DEPARTMENT OF ZOOLOGY
CORVALLIS, OR 97331
f- 503-737-0501; mengeb@bcc.orst.edu

MERCIER, ANNIE
SOCIETY FOR EXPLORATION & VALUING
OF THE ENVIRONMENT (SEVE)
655 RUE DEL LA RIVIERE
KATEVALE, QUEBEC JOB 1W0 CANADA
p- 819-843-3466; f- 819-843-3466; seve@sympatico.ca

MESSING, CHARLES G.
NOVA SOUTHEASTERN UNIVERSITY
OCEANOGRAPHIC CENTER
8000 NORTH OCEAN DRIVE
DANIA, FL 33004
p- 954-262-3658; f- 954-262-4098; messingc@nova.edu

MEYER, CHRISTIAN A.
NATURMUSEUM SOLOTHURN
KLOSTERPLATZ 2
CH-4500 SOLOTHURN, SWITZERLAND
p- 0041-32-622-7021; f- 0041-32-622-7052
100256.2743@compuserve.com

MEYER, DAVID L.
UNIVERSITY OF CINCINNATI
DEPARTMENT OF GEOLOGY
PO BOX 210013
CINCINNATI, OH 45221-0013
p- 513-556-4530; f- 513-556-6931; david.meyer@uc.edu OR
meyerd@email.uc.edu

MEZALI, KARIM
ISMAL - AQUACULTURE LAB
PO BOX 54
SIDI-FREDJ DZ-42321 TIPAZA-ALGERIA
mezali@mailcity.com

MILLER, ROBERT J.
UNIV MASSACHUSETTS, BOSTON
DEPT BIOLOGY
100 MORRISSEY BLVD
BOSTON, MA 02125
p- 617-287-6638; bmiller@soest.hawaii.edu

MINER, BENJAMIN
UNIVERSITY OF FLORIDA
DEPT ZOOL, 223 BARTRAM HALL
GAINESVILLE, FL 32611-8525
p- 352-392-8378; miner@zoo.ufl.edu

MIRONOV, ALEXANDER
INSTITUTE OF OCEANOLOGY
NAKHIMOVSKIY PROSPEKT, 36
MOSCOW, 117851 RUSSIA
p- 095-129-21-18; f- 095-124-59-83; mironov@bentos.ioras.msk.ru
OR miron@ecosys.sio.rssi.ru

MITROVIC-PETROVIC, JOVANKA R.
14 DECEMBRA 82
BEOGRAD 11000 YUGOSLAVIA
p- (011) 430-527

MLADENOV, PHILIP V.
UNIVERSITY OF OTAGO
DEPARTMENT MARINE SCIENCE
PO BOX 56
DUNEDIN, NEW ZEALAND
p- +64 3 479 8306; f- +64 3 479 8336
philip.mladenov@stonebow.otago.ac.nz

MOCRETSOVA, NINA D.
PACIFIC RESEARCH INSTITUTE
OF FISHERIES AND OCEANOGRAPHY
4, SHEVCHENKO ALLEY
VLADIVOSTOK 690600 RUSSIA

MOELLER, CHRIS
UNIV OF ALABAMA AT BIRMINGHAM
DEPT BIOLOGY, CAMPBELL HALL
1300 UNIVERSITY BOULEVARD
BIRMINGHAM, AL 35294-1170
biof036@uabdp.dpo.uab.edu

MONTAGUE, CHRISTOPHER
503 EL DORADO BLVD APT 1404
WEBSTER, TX 77598
montague@mbian.utmb.edu

MOOI, RICHARD
CALIFORNIA ACADEMY OF SCIENCES
INVERTEBRATE ZOOLOGY & GEOLOGY
GOLDEN GATE PARK
SAN FRANCISCO, CA 94118-4599
p- 415-750-7086; f- 415-750-7090; rmooi@calacademy.org

MOONEY, ROBERT C.
UNIVERSITY OF BRITISH COLUMBIA
CTR APPLIED CONSERV BIOL, FAC FORESTRY
270-2357 MAIN MALL
VANCOUVER, B.C. V6T 1Z4 CANADA
p- 604-228-2390; f- 604-822-5410 rmooney@unixg.ubc.ca

MOORE, ABIGAIL M.
MARINE CONSULTANT
YAYASAN ADI CITRA LESTARI
JL SETIA BUDI No 14D
PALU, SULTENG, INDONESIA
f- +62 451 429790; abigailmoore@hotmail.com OR
mirza1@palu.wasantara.net.id

MOORE, ANDREW
GATTY MARINE LAB
EAST SANDS
ST. ANDREWS, FIFE, SCOTLAND, UK

MORGAN, ANDREW
LEIGH MARINE LABORATORY
PO BOX 349
WARKWORTH, NORTHLAND, NEW ZEALAND
p- 649 422 6111; f- 649 422 6113; a.morgan@auckland.ac.nz

MORGAN, KATHERINE
UNIV OF FLORIDA
DEPT OF ZOOLOGY
PO BOX 118525
GAINESVILLE, FL 32611-8525
p- 352-392-1107; kmorgan@zoo.ufl.edu

MORGAN, RAPHAEL
UNIVERSITE LIBRE DE BRUXELLES
MARINE BIOLOGY LABORATORY, CP 160/15
AVE F.D. ROOSEVELT 50
BRUXELLES, B-1050 BELGIUM
rmorgan@ulb.ac.be

MORISHITA, AKIRA
NAGOYA UNIVERSITY
DEPARTMENT OF EARTH SCIENCES
CHIKUSA
NAGOYA, JAPAN

MORRILL, JOHN B.
NEW COLLEGE-USF
DIVISION NATURAL SCIENCES
5700 NORTH TAMiami TRAIL
SARASOTA, FL 34243-2197
p- 941-359-4370; f- 941-359-4396

MOTOKAWA, TATSUO
BASIC BIOLOGY
TOKYO INSTITUTE OF TECHNOLOGY
2-12-1 O-OKAYAMA, MEGURO
TOKYO, 152-8551 JAPAN
p- +81-3-5734-2659; f- +81-3-5734-2946
tmotokaw@bio.titech.ac.jp

MOURA-BRITTO, MAURO DE
INST AMBIENTAL DO PARANA
DEP DE FLORA E FAUNA -DIBAP
RUA ENGENHEIROS REBOUCAS 1206
CURITIBA PR, 80215-100 BRAZIL
p- +41 322 5044 ext 22; f- +41 333 6163 mourab@uol.com.br

MU, A.T.
INSTITUTE OF GEOLOGY AND PALEONTOLOGY
ACADEMIA SINICA
NANJING, PEOPLE'S REPUBLIC OF CHINA

MU, EN-ZHI
INSTITUTE OF GEOLOGY AND PALEONTOLOGY
ACADEMIA SINICA
NANJING, PEOPLE'S REPUBLIC OF CHINA

MUKAI, HIROSHI
HOKKAIDO UNIVERSITY
AKKESHI MARINE BIOLOGICAL STA
AKKESHI
HOKKAIDO 088-11, JAPAN
p- 0153-52-2056; f- 0153-52-2042; mukaih@hucc.hokudai.ac.jp

MULFORD, STANLEY
R. CLAUDIO MANOEL, 684
J.S. CARLOS
ALFENAS - MG, 37130-000 BRAZIL
stanley@artefinal.com.br

MULLER, CLARE V.
FLAT 1F1
21 YEAMAN PLACE
POLWARTH, EDINBURGH, EH11 1BT SCOTLAND UK
p- 0131 221 1825; clare_muller@hotmail.com

MUNAR-BERNAT, JAIME
C/O JOSE ALEMANY
VICH 6 1-3
E-07010 PALMA DE MALLORCA
BALEARIC ISLANDS, SPAIN
p- 292009

MUNK, ERIC J.
ALASKA FISHERIES SCIENCE CENTR
KODIAK INVESTIGATIONS
P.O. BOX 1638
KODIAK, AK 99615-1638
p- 907-487-5961; f- 907-487-5960; emunk@afsc.noaa.gov

MUSA, NADIRAH
1676-G LORONG GEMIA
PANJI ALAM
KUALA TERENGGANU, TERENGGANU, 21100 WEST
MALAYSIA
nadirah@catcha.com OR nadirahm@hotmail.com

MUSEUM, NATURAL HISTORY
AQUISITIONS SECTION
DEPT LIBRARY SERVICES
CROMWELL ROAD
LONDON SW7 5BD ENGLAND UK

NAGAHAMA, YOSHITAKA
NATIONAL INSTITUTE BASIC BIOL
LAB OF REPRODUCTIVE BIOLOGY
OKAZAKI 444 JAPAN

NAIDENKO, TAMARA K.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
p- 4232-311-143; f- 4232-310-900 tazibm@visenet.iasnet.com

NAKAI, SAORI
TOKAI UNIVERSITY SAGAMI HIGH SCHOOL
3-33-1, SONAN
SAGAMIHARA 228-0812 JAPAN
p- 011-81-427-42-1251; f- 011-81-427-42-1159
tokaisagami@mrj.bilobe.ne.jp

NATARAJAN, P., PROFESSOR AND HEAD
DEPT AQUATIC BIOL & FISHERIES
UNIVERSITY OF KERALA
TRIVANDRUM, KERALA, INDIA
p- 91-4651-60408; f- 91-4651-61859

NATEEWATNANA, ANUWAT
PHUKET MARINE BIOL CENTER, PO BOX 60
PHUKET 83000 THAILAND

NEBELSICK, JAMES H.
INST GEOLOGY & PALAEONTOLOGY
UNIVERSITY TUEBINGEN
SIGWARTSTRASSE 10
TUEBINGEN 72076 GERMANY
p- +49 7071 2977546; f- +49 7071 949040
nebelsick@uni-tuebingen.de

NEILL, BRUCE J.
100 TREE FERN DR
MOREHEAD CITY, NC 28557-8403
jbneill@transport.com

NEIRA, RAUL
UNIVERSIDAD DE VALLE
DEPTO DE BIOLOGIA, PO BOX 26513
CALI, COLOMBIA
rneira@biologia.univalle.edu.co

NELSON, PHIL
16020 SW ROCKROSE LANE
TIGARD, OR 97223-2678
p- 503-524-3847; phillydog9@aol.com

NEMOTO, SHIN-ICHI
OCHANOMIZU UNIVERSITY
TATEYAMA MARINE LABORATORY
KOH-YATSU, UMI-NO-HOSHI
TATEYAMA, CHIBA 294-03 JAPAN

NEPOTE, ANA CLAUDIA
CICESE-ECOLOGY
PO BOX 434844
SAN DIEGO, CA 92143-4844
anepote@yahoo.com

NESTLER, HELMUT
MAX-HAGEN-WEG 6
GREIFSWALD D-17491 GERMANY
p- 49-3834-814382; f- 49-3834-864572
nestler@mail.uni-greifswald.de

NEUMANN, CHRISTIAN
MUSEUM FUER NATURKUNDE
INSTITUT FUR PALAEONTOLOGIE
HUMBOLDT-UNIV BERLIN, INVALIDENSTR 43
BERLIN D-10115 GERMANY
p- (+49)-30-2093 8589; f- (+49)-30-2093 8868

NICHOLS, DAVID
UNIVERSITY OF EXETER
HATHERLY LABORATORIES
16 STRATHAM DRIVE
EXETER EX4 4PD ENGLANDUK
p- 01392.254463; f- 01392.263700; d.nichols@exeter.ac.uk

NICOSIA, UMBERTO
UNIV DEGLI STUDI DI ROMA "LA SAPIENZA"
DIP. DI SCIENZE DELLA TERRA
P.LE A. MORO, 5
ROME 00185 ITALY
p- +39-6-49914800; f- +39-6-4454729;
umberto.nicosia@uniroma1.it

NIESEN, THOMAS
SAN FRANCISCO STATE UNIVERSITY
DEPT MARINE BIOLOGY, DIV. BIOL
1600 HOLLOWAY AVE.
SAN FRANCISCO, CA 94019
p- 415-338-6387; f- 415-338-2295; tniesen@sfsu.edu

NISHIHARA, MORITAKA
TOHOKU UNIVERSITY
FACULTY OF SCIENCE
BIOLOGICAL INSTITUTE
SENDAI 980-77, JAPAN
p- (81) 22-217-6681; f- (081) 22-217-6686
j23067@cctu.cc.tohoku.ac.jp

NISHIZAKI, MICHAEL T.
UNIVERSITY OF NORTHERN BRITISH COLUMBIA
NATURAL RESOURCES AND ENVIRONMENTAL STUDIES
3333 UNIVERSITY WAY
PRINCE GEORGE, BC V2N 4Z9 CANADA
p- 250-960-5673; f- 250-960-5539; nishm000@unbc.ca

NITHYANANDAN, MANICKAM
NO.4 CHITLAPAKKAM MAIN RD
ANNAI INDIRA NAGAR
SELAIYUR P.O., TAMBARAM EAST
CHENNAI, TAMILNADU 600073 INDIA
p- 91(044) 2272372; nithyanandanm@yahoo.com

NOBRE, CARLA CATTELAN
RUA ITACURUCA No 111
APTO 702 TIJUCA
RIO DE JANEIRO RJ, 20510-150 BRAZIL
p- 05521 278-2645; cacanobre@yahoo.com

NOGUEIRA LIMA, RENATA PIRES
RUA MARQUES DE SAO VICENTE
390 APTO 104, GAVEA CEP
RIO DE JANEIRO, RJ 22451-040 BRAZIL
p- ++55 21 274-5343; replima@ig.com.br

NOJIMA, SATOSHI
AMAKUSA MARINE BIOLOGICAL LAB
KYUSHU UNIVERSITY GRADUATE SCH
TOMIOKA 2231, REIHOKU-CHO
AMAKUSA KUMAMOTO-KEN 863-2507 JAPAN
p- +81-969-35-0003; f- +81-969-35-2413 satoshi@bronze.ocn.ne.jp

O'CONNOR, BRENDAN D.
AQUA-FACT INTERNATIONAL
12 KILKIERRIN PARK
LIOSBAUN, GALWAY IRELAND
p- 353-91-756812; f- 353-91-756888

O'HARA, TIMOTHY D.
MUSEUM OF VICTORIA
DIVISION NATURAL HISTORY
71 VICTORIA CRESCENT
ABBOTSFORD, VICTORIA 3067 AUSTRALIA
p- 613-9284-0206; tohara@pioneer.mov.vic.gov.au

O'LOUGHLIN, P. MARK
95 BOND STREET
IVANHOE 3079 AUSTRALIA
p- 61 3 9499 7245; f- 61 3 9499 7122
moloughlin@parade.vic.edu.au

OR

O'LOUGHLIN, P. MARK
PARADE COLLEGE
PO BOX 1069
BUNDOORA 3083 AUSTRALIA
p- 61 3 9468 3382; f- 61 3 9468 3340
moloughlin@parade.vic.edu.au

O'NEILL, PATRICIA
UNIVERSITY OF WESTERN AUSTRALIA
DEPARTMENT OF ZOOLOGY
NEDLANDS, W.A. 6000 AUSTRALIA

OGURO, CHITARU
TOYAMA UNIVERSITY
DEPARTMENT OF BIOLOGY
TOYAMA 930 JAPAN

OHTA, SUGURU
UNIVERSITY OF TOKYO
OCEAN RESEARCH INSTITUTE
1-15-1 MINAMIDAI, NAKANO-KU
TOKYO 164 JAPAN
p- (+81) 3-5351-6471; f- (+81) 3-5351-6471
sohta@ori.u-tokyo.ac.jp

OJEDA, F. PATRICIO
PONT UNIV CATOLICA DE CHILE
DEPTO DE ECOLOGIA, CASILLA 114-D
SANTIAGO, CHILE
p- 56-2-686-2729 ; f- 56-2-222-5515; pojeda@genes.bio.puc.cl

OJI, TATSUO
UNIVERSITY OF TOKYO
EARTH & PLANETARY SCIENCE
HONGO
TOKYO 113-0033 JAPAN
p- +81-3-5841-4506; f- +81-3-5841-4569; oji@eps.s.u-tokyo.ac.jp

OKADA, MINORU
SCIENCE EDUCA INST OSAKA PREF
KARITA 4-CHOME
SUMIYOSHI-KU
OSAKA 558 JAPAN

OLAVE, SERGIO
INSTITUTO DE FOMENTO PESQUERO
CASILLA 78
CASTRO CHILE

OLIVARES CARDENAS, MARCO ANTONIO
CENTRO DE INVESTIGACIONES EN CIENCIAS
CERRO DE COATEPEC, CIUDAD UNIVERSITARIA
INSTITUTO LITERARIO NO. 100
CP 50000 TOLUCA, MEXICO
marcoa_olivares@hotmail.com

OLSZEWSKA-NEJBERT, DANUTA
WARSAW UNIVERSITY
INSTITUTE OF GEOLOGY
AL. ZWIRKI I WIGURY 93
WARSAWA, 02-089 POLAND
p- 22-20-51 int 39; f- 48-22-22-02-48; danuolsz@albit.geo.uw.edu.pl

OLVER, JANE B.S.
LANCE'S COTTAGE
PARKGATE ROAD
NEWDIGATE
SURREY RH5 5DY ENGLAND UK
p- 01306 631368

ORLER, PATRICIA MABEL
CADIC CC.92 USHUAIA
TIERRA DEL FUEGO, ARGENTINA
postmaster@liarau.1000.ar

ORTIZ, EDUARDO MORTEO
CALLE 9 esq. ALVARADO
ENSENADA, BAJA CALIFORNIA 22800 MEXICO
eddymorteo@hotmail.com

OSEGUERA CRUZ, JUAN MANUEL
INST CIENC DEL MAR Y LIMNOL, UNAM
LAB DE ECOLOGIA DE EQUINODERMOS
APDO. POST. 70-305
MEXICO, D.F. 04510 MEXICO
p- 525-622-58-02; f- 525-616-07-48; walkirian@hotmail.com

OTERO, MARIA DEL MAR
DUNSTAFFNAGE MARINE LABORATORY
SCOTTISH ASSOC MARINE SCIENCE
PO BOX 3
OBAN, ARGYLL PA34 4AD SCOTLAND UK
p- +44 (0) 1631 559229; mdmo@dml.ac.uk

OTSU, INES
INST INVESTIGACIONES OCEANOLOG
UNIVERSIDAD DE CHILE, CASILLA 1240
ANTOFAGASTA, CHILE

OYEN, CRAIG W.
DEPT GEOGRAPHY & EARTH SCIENCE
SHIPPENSBURG UNIVERSITY
1871 OLD MAIN DR
SHIPPENSBURG, PA 17257-2299
p- 717-477-1310; f- 717-477-4029; cwoyen@ship.edu

PABIAN, ROGER K.
UNIVERSITY OF NEBRASKA
CONSERVATION & SURVEY DIVISION, PO BOX 880517
LINCOLN, NE 68588-0517
p- 402-472-7564; f- 402-472-4608; rpabian1@unl.edu

PADILLO, LOVELE
MARINE BIOLOGY SECTION
UNIVERSITY OF SAN CARLOS
NASIPIT, TALAMBAN
CEBU CITY 6045 PHILIPPINES
lovele_pie@eudoramail.com

PAGETT, RICHARD M.
ENVIRONMENTAL MANAGEMENT & TRAINING
HUNTERS BROOK HOUSE, HOGGS LANE, PURTON
WILTSHIRE SN5 4HQ ENGLAND UK
p- +44 (0)1793-771867; f- +44 (0)1793-772663
advice@emt.u-net.com

PAIK, SANG GYU
TAEGU UNIVERSITY
BIOLOGY EDUCATION
KYUNGSAN, KYUNGBOOK 712-714 KOREA
sgpaik@taegu.ac.kr

PAINE, ROBERT T.
UNIVERSITY OF WASHINGTON
DEPARTMENT OF ZOOLOGY
SEATTLE, WA 98195

PALUMBI, STEVE
HARVARD UNIVERSITY
PROF, DEPT ORGANISMIC & EVOLUTIONARY BIOL
BIOLABS, 16 DIVINITY AVE
CAMBRIDGE, MA 02173
p- 617-496-8633; f- 617-496-5854; spalumbi@oeb.harvard.edu

PARDO ANGEL, ROBERTO
ENVIRONMENT HERITAGE DIVISION
REGIONAL AUTHORITY CORP VALLE DEL CAUCA
PO BOX 26513
CALI - VALLE, COLOMBIA
p- 57-2-3393431 - 3396671 ext 300-301; f- 57-2-3396638
pardoar@cvc.gov.co

PARMA, SARA GRACIELA
PICO 1701
7mo PISO DPTO. "G"
BUENOS AIRES 1429 ARGENTINA
parmasg@uol.com.ar

PARSLEY, RONALD L.
TULANE UNIVERSITY
DEPT GEOLOGY
NEW ORLEANS, LA 70118
p- 504-862-3191; f- 504-865-5199
parsley@mailhost.tcs.tulane.edu

PASTOR, XAVIER
LAB OCEANOGRÁFICO DE BALEARES
MUELLE DE PELAIRES S/N
PALMA DE MALLORCA
BALEARIC ISLANDS, SPAIN

PAUL, C.R.C.
LIVERPOOL UNIVERSITY
DEPARTMENT OF EARTH SCIENCES
BROWNLOW STREET
LIVERPOOL L69 3BX ENGLAND UK
p- +151 794 5181; f- +151 794 5170; crcep@liv.ac.uk

PAULAY, GUSTAV
FLORIDA MUSEUM OF NATURAL HISTORY
UNIVERSITY OF FLORIDA
GAINESVILLE, FL 32611-7800
p- 352-392-0304; f- 352-846-0287; paulay@flmnh.ufl.edu

PAULS, SHEILA MARQUES
UNIVERSIDAD CENTRAL VENEZUELA
INSTITUTO DE ZOOLOGIA TROPICAL
APARTADO 47058
CARACAS 1041-A VENEZUELA
p- 582-605-2303; f- 582-605-2204; spauls@reacciun.ve

PAWSON, DAVID L.
SMITHSONIAN INSTITUTION
NAT MUSEUM OF NATURAL HISTORY
ROOM W323, MAIL STOP 163
WASHINGTON, DC 20560-0163
p- 202-786-2127; f- 202-357-3043
pawson.david@nmnh.si.edu

PAYNE, ADAM
QUEEN MARY & WESTFIELD COLLEGE
DEPT BIOLOGICAL SCIENCES
UNIVERSITY LONDON, MILE END RD
LONDON E1 4NS ENGLAND UK
p- +44 0207 2957819; bt8213@qmw.ac.uk
agpayne@yahoo.com

PEARCE, CHRIS
ROSS ISLAND SALMON LTD
PO BOX 1304
GRAND MANAN NB E5G 4M9 CANADA
p- 506-662-9001; f- 506-662-8088; cpearce@nbnet.nb.ca

PEARSE, JOHN S.
INSTITUTE OF MARINE SCIENCE
UNIVERSITY CALIFORNIA, SANTA CRUZ
100 SHAFFER ROAD
SANTA CRUZ, CA 95060
p- 831-459-2455; f- 831-459-3383
pearse@biology.ucsc.edu

PENCHASZADEH, PABLO E.
FAC CIENCIAS EXACTAS y NATURALES
UNIVERSIDAD DE BUENOS AIRES
AV ANGEL GALLARDO 470
BUENOS AIRES 1405 ARGENTINA
pablop@mail.retina.ar

PENNINGTON, J.TIMOTHY
MBARI
7700 SANDHOLDT ROAD
PO BOX 628
MOSS LANDING, CA 95039
p- 408-647-3715; f- 408-649-8587; peti@wave.mbari.org

PEREIRA MAJER, ALESSANDRA
CENTRO DE BIOLOGIA MARINHA - USP
CAIXA POSTAL 103
SAO SEBASTIAO SP 11600-970 BRAZIL
p-55(0)12 462-6455; f- 55(0)12 462-6646; lhemajer@hotmail.com

PEREZ-RUZAFIA, ANGEL
UNIVERSIDAD DE MURCIA
DEPTO DE ECOLOGIA, FACULTAD DE BIOLOGIA
MURCIA 30100 SPAIN
p- 34-68-833000; f- 34-68-363963; angelpr@fcu.um.es

PETR, VACLAV
CHARLES UNIVERSITY
ZOOLOGICAL LIBRARY, FAC SCIENCE
VINICNA 7
128 44 PRAHA 2, CZECH REPUBLIC
vpetr@mail.natur.cuni.cz

PETROVA, IRINA YU.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
p- (4232) 31-11-78; f- (4232) 310-900
inmarbio@mail.primorye.ru

PHILIPPE, MICHEL
MUSEUM D'HISTOIRE NATURELLE
28, BD DES BELGES
LYON 69006 FRANCE
p- 72.69.05.00; f- 78.94.62.25

PIEPENBURG, DIETER
INSTITUTE FOR POLAR ECOLOGY
UNIVERSITAET KIEL
WISCHHOFSTR. 1-3, GEBAUDE 12
KIEL D-24148 GERMANY
p- +49-431-600-1264; f- +49-431-600-1210
dpiepenburg@ipoe.uni-kiel.de

PIKE, ARLENE J.
DALLAS MUSEUM OF NAT HIST
PO BOX 150349
DALLAS, TX 75315

PINELA, JEAN E.
UNIVERSIDAD AUSTRAL DE CHILE
INSTITUTO DE ZOOLOGIA, CASILLA 567
VALDIVIA, CHILE

PIZER, MARGARET
DUKE UNIVERSITY
ZOOLOGY DEPT
BOX 90325, BIOL SCI 104
DURHAM, NC 27708-0325
p- 919-668-6249; mp15@duke.edu

PODOLSKY, ROBERT D.
UNIVERSITY OF SOUTH CAROLINA
BIOLOGY CB 3280
CHAPEL HILL, NC 27599
p- 919-962-9247; f- 919-962-1625; podolsky@unc.edu

POIROT, ERIC
240 GRANDE RUE
CIDEX 307
MOUTROT 54113 FRANCE
p- +33674971035; f- +33383625350 poirot_eric@hotmail.com

POMORY, CHRISTOPHER
UNIVERSITY OF WEST FLORIDA
DEPARTMENT OF BIOLOGY
11000 UNIVERSITY PARKWAY
PENSACOLA, FL 32514-5754
p- 850-474-2748; f- 850-474-2749; cpomory@uwf.edu

PORETZKAJA, E. S.
V-34, 1 LINE, 10 APRTM. 21
LENINGRAD 199034 RUSSIA

PORTELL, ROGER W.
FLORIDA MUSEUM OF NATURAL HISTORY
DEPT NATURAL SCIENCES, UNIV FLORIDA
PO BOX 117800
GAINESVILLE, FL 32611-7800
p- 352-392-0065; f- 352-846-0287; portell@flmnh.ufl.edu

POTTER, JEAN
LIBRARIAN, NIWA
PO BOX 14-901
KILBIRNIE, WELLINGTON, NEW ZEALAND
p- 64-4 386-0544; f- 64-4 386-0574; j.potter@niwa.cri.nz

PRESTEDGE, GEOFFREY K.
16 GEEVES CRESCENT
MIDWAY POINT
TASMANIA 7171 AUSTRALIA
p- 61-03-62652674

PROKOP, RUDOLF JAN
NATIONAL MUSEUM
DEPT PALAEONTOLOGY
VACLAVSKE NAM. 68
115 79 PRAHA 1, CZECH REPUBLIC
p- 42-2-24497262; f- 42-2-24226488; rudolf.prokop@nm.cz

PROPP, MIKHAIL V.
INSTITUTE OF MARINE BIOLOGY
RUSSIAN ACAD. SCI.
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
p- 423-231-11-49; f- 423-231-09-00; faribm@visenet.iasnet.com

PUTCHAKARN, SUMAITT
BURAPHA UNIVERSITY
INSTITUTE OF MARINE SCIENCE
BANGSAEN, CHONBURI 20131 THAILAND
p- 66-38-391671; f- 66-38-391674; sumaitt@bucc4.buu.ac.th

QUEVEDO, RUY
KM 6.5 via DURAN TAMBO
GUAYAQUIL, ECUADOR
p- 593-9-484892; rquevedo@porta.net

RAHAMAN, ABDUL ABDUL
SRI VASAVI COLLEGE
PROFESSOR OF ZOOLOGY
ERODE-G38 31B INDIA

RAJAKUMAR, C. P.
UNIVERSITY COLLEGE
DEPT OF ZOOLOGY
PALAYAM, TRIVANDRUM
KERALA 695 034 INDIA
p- 04-6515-2503

RAM MOHAN, M. K.
MOHAN COTTAGE
VANDANAM MEDICAL COLLEGE
PO ALLEPPEY
KERALA 688005 INDIA
p- 0091 95477 273203; rammohanmk@yahoo.com

RANNER, HERWIG
UNIVERSITE LIBRE DE BRUXELLES
CP 160/15
AV. F.D. ROOSEVELT 50
BRUXELLES 1050 BELGIUM
herwig.ranner@gmx.net

RAVEST, CARLOS
AV VALPARAISO 209 c.14
VILLA ALEMANA, CHILE
p- 56-32-951250; f- 56-32-951250; racor@chilesat.net

RAYMOND, ALAN M.
UNIVERSITY OF ST. ANDREWS
GATTY MARINE LAB
ST. ANDREWS
FIFE KY16 8LB SCOTLAND UK

RECEIPT, SERIALS
BLACKER-WOOD LIBRARY OF BIOLOGY
McGILL UNIV, REDPATH LIBRARY BLDG
3459 McTAVISH STREET
MONTREAL, QUEBEC H3A 1Y1 CANADA
p- 514-398-4744; f- 514-398-8231; maclean@lib1.lan.mcgill.ca

REGIS, MARIE-BERTHE
FACUL SCI & TECH DE ST. JEROME
(CERAM) CASE 341
AVE ESCADRILLE NIEMEN-NORMANDIE
MARSEILLE CEDEX 20, 13397 FRANCE
p- 91.28.80.99; f- 91.28.80.30

REGNAULT, SERGE E.
MUSEUM D'HISTOIRE NATURELLE
12, RUE VOLTAIRE
NANTES 44000 FRANCE
p- (33)02.40.99.2635; f- (33)02.51.84.01.91
serge-regnault@mairie-nantes.fr

REGNELL, GERHARD
GEOLOGISKA INSTITUTIONEN
SOLVEGATAN 13
S-223 62 LUND SWEDEN
p- 46-121-475; f- 46-121-477

REICH, MIKE
INSTITUTE GEOLOGICAL SCIENCES
E.-M.-ARNDT UNIVERSITY
F.-L.JAHN STR 17a
GREIFSWALD D-17489 GERMANY
p- +49 (0)3834-86-4552; f- +49 (0)3834-86-4572
reichmi@mail.uni-greifswald.de

REMPALA, ERIN
CALIFORNIA ACADEMY OF SCIENCES
INVERTEBRATE ZOOLOGY & GEOLOGY
GOLDEN GATE PARK
SAN FRANCISCO, CA 94118-4599
p- 415-750-7093; erempala@calacademy.org

REY, DANIEL
VILA I VILA 17 79
BARCELONA 08004 SPAIN
p- (343) 451-9052; f- (343) 451-9087

RHO, BOON JO
EWA WOMENS UNIVERSITY
DIR OF NATURAL HISTORY MUSEUM
SEOUL 120 KOREA

RICHMOND, MATT
SCHOOL OF OCEAN SCIENCES
MENAI BRIDGE
ANGLESEY LL59 5EY NORTH WALES UK
p- 44-1248-354557; f- 44-1248-354557

RINELLI, PAOLA
ISTITUTO SPERIMENTALE TALASSOGRAFICO CNR
SPIANATA SAN RAINERI, 86
98122 MESSINA, ITALY
p- +39 090 669003; f- +39 090 669007; rinelli@talas.ist.me.cnr.it

RINGVOLD, HALLDIS
KUNNSKAPSENTERET i GILDESKAL
INNDYR 8140 NORWAY
p- 75-75-63-02; f- 75-75-76-76; halldis@kunnskapig.no

ROBBINS, STEVEN J.
PO BOX 3468
SHAWNEE, KS 66203

ROBEL, TOM
1236 SE 86TH AVE
PORTLAND, OR 97216
cubeez@aol.com

ROBERTS, DAI
THE QUEEN'S UNIVERSITY, BELFAST
SCHOOL OF BIOLOGY AND BIOCHEMISTRY
BELFAST BT9 7BL NORTHERN IRELAND UK
p- +1232 245133; f- +1232 236505

ROBERTS, SARAH
500 WESTOVER DRIVE
HATTIESBURG, MS 39402
venom200@hotmail.com

ROBINSON, SHAWN M.C.
APPLIED AQUACULTURE SECTION
BIOLOGICAL STATION
531 BRANDY COVE RD
ST ANDREWS, NB E5B 2L9 CANADA
p- 506-529-8854 ext. 5932; f- 506-529-5862
robinsonsm@mar.dfo-mpo.gc.ca

ROCCATAGLIATA, ALEJANDRO J.
UNIVERSIDAD DE BUENOS AIRES
FACULTAD DE CIENCIAS EX. Y NAT
PABELLON 2, CID UNIVERSITARIA
BUENOS AIRES 1428 ARGENTINA
p- 54-1-782-0529; f- 54-1-787-2696
alerkt@quimor.qo.fcen.uba.ar

RODRIGUEZ, EVELYN
INST. ZOOL. TROPICAL, FAC. DE CIENCIAS
UNIV CENTRAL VENEZUELA, PASEO LOS ILUSTRE
LOS CHAGUARAMOS, APDO. 47058
CARACAS 1041-A VENEZUELA
p- 582-605-2208; f- 582-605-2136
fprovenz@strix.ciens.ucv.ve

RODRIGUEZ, SEBASTIAN R.
PONT. UNIV CATOLICA DE CHILE
DEPARTAMENTO DE ECOLOGIA
CASILLA 114-D
SANTIAGO, CHILE
p- 56-2-686-2797; f- 56-2-222-5515
esrodrig@genes.bio.puc.cl

ROGERS-BENNETT, LAURA
FRIDAY HARBOR LABS
UNIVERSITY OF WASHINGTON
620 UNVERSITY ROAD
FRIDAY HARBOR, WA 98250
p- 360-378-2165; f- 206-543-1273
rogersb@hfl.washington.edu

ROMINAS-CASTRO, LILY
NATIONAL INSTITUTE FISHERIES
PO BOX 1306
ENSENADA, BAJA CALIFORNIA 22800 MEXICO
p- 617-46085; f- 617-46135

RONEY, JIM
BIOLOGY LAB/ ENVIRONMENTAL MONITORING DIV
12000 VISTA DEL MAR
PLAYA DEL REY, CA
p- 310-648-5926; **jdr@san.ci.la.ca.us**

ROSE, EDWARD P.F.
ROYAL HOLLOWAY, UNIV OF LONDON
DEPARTMENT OF GEOLOGY
EGHAM
SURREY TW20 0EX ENGLAND UK
p- 44-1-78-444-3589; f- 44-1-78-447-1780
rose@sunl.gl.rhbnc.ac.uk

ROTHENBERGER, PAIGE
UNIVERSITY OF THE VIRGIN ISLANDS
VI MARINE LABORATORY SERVICE
RR #2, BOX 10,000
KINGSHILL 00850 ST. CROIX, VIRGIN ISLANDS
prothen@uvi.edu

ROTMAN CLARK, HELEN E.S.
N.Z. OCEANOGRAPHIC INSTITUTE
NIWA
PO BOX 14-901, KILBIRNIE
WELLINGTON, NEW ZEALAND
p- (04) 386-0300; f- (04) 386-2153; **h.rotman@niwa.cri.nz**

ROUX, MICHEL
UNIV DE REIMS CHAMPAGNE-ARDENNE
LAB DES SCIENCES DE LA TERRE
2 ESPLANADE ROLAND GARROS
REIMS 51100 FRANCE
p- 03-26-77-3681; f- 03-26-77-36-94; **micel.roux@univ-reims.fr**

ROWE, FRANK W.E.
GOLDBROOK BOARDING KENNELS
NUTTERY VALE, CROSS STREET
HOXNE
SUFFOLK IP21 5BB ENGLAND UK
p- 01379-668-267; f- 01379-668-267
Fwer.Goldbrookenn@btinternet.com

ROY, MICHAEL S.
UNIVERSITY OF OTAGO
DEPT ZOOLOGY
PO BOX 56
DUNEDIN, NEW ZEALAND
p- +64-3-479-5456; f- +64-3-479-7584
michael.roy@stonebow.otago.ac.nz

ROZHN OV, SERGEI V.
PALEONTOLOGICAL INSTITUTE
RUSSIAN ACADEMY OF SCIENCES
PROF SOYUSNAYA STR. 123
V-321 MOSCOW 117647 RUSSIA
p- 7-095-952-40-06; f- 7-095-954-38-15; **lenin33@paleo.msk.su**

RUBILAR, TAMARA
MARCOS A ZAR 1818 1o
PUERTO MADRYN 9120 ARGENTINA
p- 0054 2965 453058; **tamararubilar@hotmail.com**

RUENGSAWANG, NISIT
RAMKHAMHAENG UNIVERSITY
DEPT BIOLOGY, FACULTY OF SCIENCE
BANGKOK 10240 THAILAND
p- 66-2-3195219 ext. 244; f- 66-2-3108395
nruengsawang@hotmail.com

RUHBERG, HILKE
ZOOLOGISCHES INSTITUT UND MUSEUM
ABT NIEDERE TIERE 1
MARTIN LUTHER KING PLATZ 3
HAMBURG 20146 GERMANY
p- (040) 41235644; f- (040) 41233937
ruhberg@zoologie.uni-hamburg.de

RUMRILL, STEVEN S.
SOUTH SLOUGH NATIONAL ESTUARINE RESERVE
PO BOX 5412
CHARLESTON, OR 97420

RUSSELL, MICHAEL P.
VILLANOVA UNIVERSITY
BIOLOGY DEPT
800 LANCASTER AVENUE
VILLANOVA, PA 19085-1699
p-610-519-4695; f- 610-519-7863; michael.russell@villanova.edu

RYABUSHKO, VITALY
INSTITUTE OF BIOLOGY OF THE
SOUTHERN SEAS, DEPT ANIMAL PHYSIOL.
2 NAKHIMOV AVE.
SEVASTOPOL 335001 UKRAINE

SABA, MASAKI
581-60 SAKURA-MACHI
MATSUSAKA CITY, MIE PREF, JAPAN
p- 0598-26-3642

SADLER, KIRSTEN C.
BOSPHORUS UNIVERSITY
DEPT MOLECULAR BIOLOGY & GENETICS
BEBEK 80815
ISTANBUL, TURKEY
p- 90-212-263-1540 x2284 (o) x1627 (sec) x1878 (lab)
f- 90-212-265-9778
kirsten_sadler_phd98@post.harvard.edu

SAHA, APURBA KUMAR
TOKYO INSTITUTE TECHNOLOGY
202, UMEGAOKA DORMITORY
UMEGAOKA 17-2, AOBA-KU
YOKOHAMA 227-0052 JAPAN
apuban@hotmail.com

SALAMON, MARIUSZ ANDRZEJ
UNIVERSITY OF SILESIA
DEPT EARTH SCIENCES
BEDZINSKA STR 60
SOSNOWIEC 41-200 POLAND
p- +48 032 218381 (277); f- +48 032 2915865; m.sal@poczta.fm

SAMYN, YVES
VRIJE UNIVERSITEIT BRUSSEL
LAB ECOLOGY & SYSTEMATICS
PLEINLAAN 2
1050 BRUSSEL, BELGIUM
p- 00322 6293443; f- 00322 6293403; ysamyn@vub.ac.be

SANCHEZ, PATRICIO
UNIVERSIDADE CATOLICA, FAC CIENC BIOL
CASILLA 114-D
SANTIAGO, CHILE

SANFORD, ERIC
HOPKINS MARINE STATION
STANFORD UNIVERSITY
OCEANVIEW BLVD
PACIFIC GROVE, CA 93950
p- 831-655-6238; sanforde@leland.stanford.edu

SANO, MINORU
TOHOKU UNIVERSITY
FAC AGRIC, DEPT APPLIED BIO-SCI
1-1, TSUTSUMIDORI AMAMIYAMACHI
SENDAI, JAPAN
msano@bios.tohoku.ac.jp

SANTILLAN, AUGUST S.
UNIV PHILIPPINES - VISAYAS
COLLEGE OF ARTS & SCIENCES
DIV BIOLOGICAL SCIENCES
MIAGAO, ILOILO, PHILIPPINES
odjie04@mailcity.com

SANTOS, JOCO FARIA
RUA DA ARQUINHA, 92
9500 PONTA DELGADA
S. MIGUEL-AZORES, PORTUGAL
helab@linus.uac.pt

SAPP, JANN
YORK UNIVERSITY
CHAIR, DEPT SCIENCE STUDIES
4700 KEELE STREET
NORTH YORK, ONTARIO, CANADA
p- 416-736-5213; jsapp@um2.yorku.ca

SASTRY, DWADASI R.K.
ANDAMAN & NICOBAR REGIONAL STATION
ZOOLOGICAL SURVEY OF INDIA
PORT BLAIR 744 102 INDIA
p- (91-3192) 33148; f- (91-3192) 30115

SATO, HIDEMI
NAGANO UNIVERSITY, FAC SOCIAL SCIENCE
SHIMONOGO, UEDA,
NAGANO 386-12 JAPAN

SAUCEDE, THOMAS
UNIVERSITE DE BOURGOGNE
CENTRE DES SCIENCES DE LA TERRE
6 BD GABRIEL
DIJON 21000 FRANCE
p- 03.80.39.63.82; f- 03.80.39.63.87
thomas.saucede@u-bourgogne.fr

SAUER DE AVILA PIRES, TERESA C.
CIUDADE UNIVERSITARIA
DEPTO DE ZOOLOGICA/UFRJ
ILHA DO FUNDADO, CCS-SALA A1-117
RIO DE JANEIRO 21.941 BRAZIL

SCALLY, KEVIN B.
CANTERBURY HEALTH LIMITED
CHRISTCHURCH HOSP, DENTAL SERV
PO BOX 1600
CHRISTCHURCH, NEW ZEALAND
p- 64-3640-250; f- 64-3640-246; kevin.scally@clear.net.nz

SCHEIBLING, ROBERT E.
DALHOUSIE UNIVERSITY
DEPT BIOLOGY
HALIFAX NS B3H 4J1 CANADA
p- 902-494-3515; f- 902-494-3736; rescheib@ac.dal.ca

SCHEIN, JASON P.
290 RIVER RIDGE ROAD
ALEXANDER CITY, AL 35010
p- 256-825-2101; scheijp@mail.auburn.edu

SCHELTEMA, RUDOLF S.
WOODS HOLE OCEANOGRAPHIC INST.
DEPT BIOLOGY MS #34
WOODS HOLE, MA 02543
p- 508-289-2337; f- 508-457-2169; rscheltema@whoi.edu

SCHINNER, G. O.
INSTITUT ZOOLOGIE, UNIVERSITAT WIEN
ALTHANSTRASSE 14
VIENNA A-1090 AUSTRIA
f- 222-313-36-778; schinner@zoo.univie.ac.at

SCHOPPE, SABINE
STATE POLYTECHNIC COLLEGE OF PALAWAN
AQUATIC SCIENCE & TECHNOLOGY INSTITUTE
PUERTO PRINCESA CITY
SANTA MONICA, PALAWAN 5300 PHILIPPINES
p- +63 (0)48 433 3579; f- +63 (0)48 433 4367
schoppes@pal-onl.com

SCHROEDER, W.
DAUPHIN ISLAND SEA LAB
MAR ENVIRON SCI CONSORTIUM
PO BOX 369-370
DAUPHIN ISLAND, AL 36528

SCHUETZ, ALLEN W.
JOHNS HOPKINS UNIVERSITY
SCH HYGIENE & PUBLIC HEALTH
615 N WOLFE ST
BALTIMORE, MD 21205-2179
p- 410-357-5765; f- 410-955-0617; aschuetz@jhsp.edu

SCHUHMACHER, HELMUT
UNIVERSITAT GH ESSEN
INSTITUT FUR OKOLOGIE
ABTEILUNG HYDROBIOLOGIE
ESSEN D-45117 GERMANY
p-0201/183-3777; f-0201/183-2529 h.schuhmacher@uni-essen.de

SCHULTZ, HEINKE
DORFSTRASSE 32
HEMDINGEN D-25485 GERMANY
p- int.+ 4123-4130; f- int.+4106-775833
Heinke_Schultz@bigfoot.de

SECTION, ACQUISITIONS
THE NATURAL HISTORY MUSEUM
DEPT LIBRARY & INFORMATION SERVICES
CROMWELL ROAD
LONDON SW7 5BD ENGLAND UK
gk@nhm.ac.uk

SEETO, JOHNSON
MARINE STUDIES PROGRAMME
THE UNIVERSITY OF SOUTH PACIFIC
P.O. BOX 1168
SUVA, FIJI
p- (679) 313900; f- (679) 301490; seeto_j@usp.ac.fj

SERAFY, D. KEITH
SOUTHAMPTON COLLEGE OF LONG ISLAND UNIV
DEPT BIOLOGY & MARINE SCIENCE
239 MONTAUK HWY
SOUTHAMPTON, NY 11968
p- 631-287-8408; f- 516-287-8419
kserafy@southampton.liunet.edu

SEVASTOPULO, GEORGE D.
UNIVERSITY OF DUBLIN
TRINITY COLLEGE
DEPT GEOLOGY
DUBLIN 2, IRELAND
p- 353 1 608 1361; f- 353 (0)1 671 1199; gsfstpul@tcd.ie

SEWELL, MARY A.
UNIVERSITY OF AUCKLAND
SCHOOL OF BIOLOGICAL SCIENCES
PRIVATE BAG 92019
AUCKLAND, NEW ZEALAND
p- 649 373-5999 ext. 3758; f- 649 373-7417
m.sewell@auckland.ac.nz

SHEPHERD, SCORESBY A.
S.A. RESEARCH AND DEVELOPMENT INSTITUTE (SARDI)
PO BOX 120
HENLEY BEACH, SA 5022 AUSTRALIA
p- 8-200-2427; f- 8-200-2481
shepherd.scoresby@saugov.sa.gov.au

SHICK, J. MALCOLM
UNIVERSITY OF MAINE
DEPT BIOLOGICAL SCIENCES
5751 MURRAY HALL
ORONO, ME 04469-5751
p- 207-581-2551; f- 207-581-2537; shick@maine.maine.edu

SHIMABUKU, TYRA
3347 A. PALI HWY
HONOLULU, HI 96817
p- 808-956-6804; f- 808-956-4933; tyrar@hawaii.edu

SHIRAI, HIROKO
USHIMADO MARINE LABORATORY
FAC SCIENCE, OKAYAMA UNIVERSITY
USHIMADO, OKU
OKAYAMA 701-4303 JAPAN
p- +81-869-34-5210; f- +81-869-34-5211
shirai@uml.okayama-u.ac.jp

SHIRLEY, THOMAS C.
JUNEAU CENTER FOR FISHERIES &
OCEAN SCIENCES, UAF
11120 GLACIER HWY
JUNEAU, AK 99801
p- 907-465-6449; f- 907-465-6447; jftcs@acad1.alaska.edu

SIBUET, MYRIAM
IFREMER - CENTRE DE BREST
DRO/EP, BP 70
PLOUZANE 29280 FRANCE
p- 33-02-9822-4303; f- 33-02-9822-4547; msibuet@ifremer.fr

SIDES, ELIZABETH
12 CHURCHTOWN AVE
DUBLIN 14, IRELAND
sidese@gofree.indigo.ie

SIMMS, MICHAEL J.
CHELTENHAM & GLOUCESTER COLLEGE
OF HIGHER EDUCATION
DEPT GEOGRAPHY & GEOLOGY
CHELTENHAM GL50 4AZ ENGLAND UK

SIMPSON, RODNEY D.
UNIVERSITY OF NEW ENGLAND
SCHOOL BIOLOGICAL SCIENCES, ZOOLOGY
ARMIDALE NSW 2351 AUSTRALIA
p-61-2-6773-5010; f-61-2-6773-5011 rsimpson@metz.une.edu.au

SINGLETARY, ROBERT L.
UNIVERSITY OF BRIDGEPORT
BIOLOGY DEPARTMENT
BRIDGEPORT, CT 06601-2449
p- 203-576-4270; f- 203-576-4766; robert@bridgeport.edu

SKOLD, MATTIAS
COUNTY ADMINISTRATION
NATURE CONSERVATION SECTION
403 40 GOTEBOG, SWEDEN
p- +46 31 60 52 98; f- +46 31 60 52 09; mattias.skold@o.lst.se

SLATTERY, MARC
UNIVERSITY OF MISSISSIPPI
DEPT PHARMACOGNOSY
SCHOOL OF PHARMACY
UNIVERSITY, MS 38677
p- 601-232-1053; f- 601-232-7026
mslatter@sunset.backbone.olemiss.edu

SLOAN, NORMAN A.
GWAI HAANAS NATIONAL PARK RESERVE
PO BOX 37
QUEEN CHARLOTTE, BC VOT 1S0 CANADA
p- 250-559-6342; f- 250-559-8366; Norm_Sloan@pch.gc.ca

SMILEY, SCOTT
UNIVERSITY OF ALASKA
FISHERY INDUSTRIAL TECHNOLOGY CENTER
118 TRIDENT WAY
KODIAK, AK 99615-7401
p- 907-486-1500; f- 907-486-1540; scott.smiley@uaf.edu

SMIRNOV, ALEXEI V.
ZOOLOGICAL INSTITUTE
RUSSIAN ACADEMY OF SCIENCES
UNIVERSITETSKAYA NAB.,1
ST. PETERSBURG 199034 RUSSIA
p- +7 (812) 218- 13-11; f- +7 (812) 218- 29-41 OR +7 (812)
114-04-44; alex@vig.usr.pu.ru

SMIRNOV, IGOR S.
ZOOLOGICAL INSTITUTE
ACADEMY OF SCIENCES
UNIVERSITETSKAYA NAB.,1
ST. PETERSBURG 199034 RUSSIA
p- 7-812-328-13-11; f- 7-812-328-29-41; smiris@zin.ru

SMITH, ANDREW B.
DEPARTMENT OF PALAEOLOGY
THE NATURAL HISTORY MUSEUM
CROMWELL ROAD
LONDON SW7 5BD ENGLAND UK
p- 0044 0208 942 5217; f- 0044 0208 942 5546
a.smith@nhm.ac.uk

SMITH, L. COURTNEY
GEORGE WASHINGTON UNIVERSITY
DEPT BIOLOGICAL SCIENCES
334 LISNER HALL, 2023 G ST NW
WASHINGTON, DC 20052
p- 202-994-9211; f- 202-994-6100; csmith@gwu.edu

SMITH, MICHAEL J.
SIMON FRASER UNIVERSITY
DEPT BIOLOGICAL SCIENCES
8888 UNIVERSITY BLVD
BURNABY, BC V5A 1S6 CANADA
p- 604-291-5366; mjsmith39@hotmail.com

SOLANDT, JEAN-LUC
22B ALLOWAY RD
LONDON E3 5AS ENGLAND UK
p- 0181 981 1096; jean-luc@solandt.freeserve.co.uk

SOLANO, OSCAR DAVID
AA 1016 INVEMAR
CERRO DE PUNTA BETIN
SANTA MARTA, COLOMBIA
odsolano@invemar.org.co

SOLIS-MARIN, FRANCISCO A.
SOUTHAMPTON OCEANOGRAPHY CENTRE
DEPARTMENT OF OCEANOGRAPHY
EUROPEAN WAY
SOUTHAMPTON SO14 3ZH ENGLAND UK
p- +44 (023) 80-59-64-70; f- +44 (023) 80-59-30-59
fasolis@soton.ac.uk OR fasm@soton.ac.uk

SOLIS-MARIN, FRANCISCO A.
INST CIENC DEL MAR Y LIMNOL, UNAM
LAB DE ECOLOGIA DE EQUINODERMOS
APDO. POST. 70-305
MEXICO, D.F., 04510 MEXICO
p- 525-622-58-02; f- 525-616-07-48 fasolis@mar.icmyl.unam.mx

SOLOVJEV, ANDREY N.
PALEONTOLOGICAL INSTITUTE
RUSSIAN ACADEMY OF SCIENCES
PROFSOYUSNAYA STR 123
MOSCOW V-321, 117647 RUSSIA
p- 7 095 952 4006; f- 7 095 954 3815; lenin33@paleo.msk.su

SONNENHOLZNER, JORGE I.
P.O. BOX 599-000
MIAMI, FL 33159

OR

SONNENHOLZNER, JORGE I.
ECOCIENCIA
ISLA SAN CRISTOBAL
1523 e ISLA SEYMOUR
QUITO, ECUADOR
p- 593 4 451338; f- 593 4 249334 ecoproj@hoy.net

SOUSA, RUI P.M.
SECCO DE BIOLOGIA MARINHA
UNIVERSIDADE DOS AZORES
RUA DA MCE DE DEUS, 58
9500 PONTA DELGADA
S. MIGUEL, AZORES
p- +351 296 653 044; f- +351 296 653 455
ruisousa22@hotmail.com

SOUTH, G. ROBIN
UNIVERSITY OF THE SOUTH PACIFIC
INSTITUTE OF MARINE RESOURCES
PO BOX 1168
SUVA, FIJI

SPENCER, LARRY T.
PLYMOUTH STATE COLLEGE
DEPT NATURAL SCIENCE
BOYD HALL
PLYMOUTH, NH 03264
p- 603-535-2322; f- 603-535-2723; its@plymouth.edu

SPIRINA, IRINA S.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
p- (4232) 31-11-78; f- (4232) 310-900
inmarbio@mail.primorye.ru

SPIRLET, CHRISTINE
LAB DE BIOLOGIE MARINE CP 160/15
UNIVERSITE LIBRE DE BRUXELLES
50 AVE FD ROOSEVELT
BRUSSÉLS 1050 BELGIUM
p- +322-650.29.70; f- +322-650.27.96; cspirlet@ulb.ac.be

SPONER, RENATE
UNIVERSITY OF OTAGO
DEPT MARINE SCIENCE
PO BOX 56
DUNEDIN, NEW ZEALAND
p- +643 479 8306; f- +643 479 8336
renate.sponer@stonebow.otago.ac.nz

SPRINGER, EMILY
445 RIO VISTA LANE
MERRITT ISLAND, FL 32952
e_springer@yahoo.com

SPRINKLE, JAMES
UNIVERSITY OF TEXAS
DEPT OF GEOLOGICAL SCIENCES
AUSTIN, TX 78712
p- 512-471-4264; f- 512-471-9425 echino@mail.utexas.edu

STANCYK, STEPHEN E.
UNIV SOUTH CAROLINA
MARINE SCIENCE PROGRAM
COLUMBIA, SC 29208
p- 803-777-3944; f- 803-777-3935; stancyk@sc.edu

STARMER, JOHN A.
UNIVERSITY OF GUAM
MARINE LABORATORY
MANGILAO, GU 96923
p- 671-735-2176; f- 671-734-6767; jstarmar@yahoo.com

STENKIL, MARGARETA
NATURAL HISTORY MUSEUM
BOX 406
MALMO S20124 SWEDEN
p- 46-4-0344414; f- 46-4-0344364

STEVENSON, KATHRYN
LIBRARIAN
UNIVERSITY MARINE BIOLOGICAL STATION
MILLPORT
ISLE OF CUMBRAE KA28 0EG SCOTLAND UK
p- 01475-530581; f- 01475-530601
kathryn.stevenson@millport.gla.ac.uk

STEWART, BRIAN G.
362 YORK PLACE
CITY RISE
DUNEDIN, NEW ZEALAND
p- 64-3-477-6509; brianstewart@clear.net.nz

STICKLE JR., WILLIAM B.
LOUISIANA STATE UNIVERSITY
DEPT BIOLOGICAL SCIENCES
508 LIFE SCIENCES BLDG
BATON ROUGE, LA 70803-1715
p- 225-388-1739; f- 225-388-2597; zostic@lsu.edu

STOCK, STUART R.
735 PRAIRIE AVE
WILMETTE, IL 60091
p- 847-920-9010; f- 847-920-9011; stuart.stock@mse.gatech.edu

STOCKLEY, BRUCE
DEPARTMENT OF PALAEOLOGY
THE NATURAL HISTORY MUSEUM
CROMWELL ROAD
LONDON SW7 5BD ENGLAND UK
p- 0044 0207 942 5773; brus@nhm.ac.uk

STOEHR, SABINE
SWEDISH MUSEUM OF NATURAL HISTORY
DEPT INVERTEBRATE ZOOLOGY
BOX 50007
STOCKHOLM SE-104 05 SWEDEN
p- +46(0)8 5195 5105; f- +46(0)8 5195 4125; sabine.stoehr@nrm.se

STOKES, ROBERT B.
KINGSTON UNIVERSITY
SCHOOL OF GEOLOGICAL SCIENCES
KINGSTON UPON THAMES
SURREY KT1 2EE ENGLAND UK

STORC, RICHARD
SMETANOVA 380
MNICHOVICE 251 64 CZECH REPUBLIC
store@prfdec.natur.cuni.cz

STRATHMANN, RICHARD R.
FRIDAY HARBOR LABORATORIES
UNIVERSITY OF WASHINGTON
620 UNIVERSITY ROAD
FRIDAY HARBOR, WA 98250
p- 206-616-0705; f- 206-543-1273; rrstrath@u.washington.edu

STUBBS, T.
UNIVERSITY OF ST. ANDREWS
GATTY MARINE LAB
FIFE KY16 8L3 SCOTLAND UK

STUMP, RICHARD J.
UNIVERSITY OF SYDNEY
DEPT ANATOMY & HISTOLOGY, F13
SYDNEY NSW 2006 AUSTRALIA
p- +612-9351-5168; f- +612-9351-2813
rstamp@anatomy.usyd.edu.au

SU, XIAOWEI
DEPT BIOMEDICAL ENGINEERING
LERNER RESEARCH INSTITUTE, ND20
CLEVELAND CLINIC FOUNDATION
CLEVELAND, OH 44195
p- 216-445-3822; f- 216-445-4990; sux@bme.ri.ccf.org

SULLIVAN, KATHLEEN M.
UNIVERSITY MIAMI
MARINE CONSERVATION SCIENCE
DEPT OF BIOLOGY, BOX 249118
CORAL GABLES, FL 33124

SUMRALL, COLIN D.
GEIER COLLECTIONS AND RESEARCH CENTER
CINCINNATI MUSEUM CENTER
1720 GILBERT AVE
CINCINNATI, OH 45202
p- 513-345-8509; f- 513-345-8501; sumralcd@email.uc.edu

SUTER, SHERMAN J.
SMITHSONIAN INSTITUTION
NAT MUSEUM OF NATURAL HISTORY
ROOM E121
WASHINGTON, DC 20560
p- 202-633-9322; suters@nsmnh.si.edu

TABLADO, ALEJANDRO
MUS. ARGENTINA CS. NATURALES
"BERNARDINO RIVADAVIA"
AV. ANGEL GALLARDO 470
C1405DJR BUENOS AIRES, ARGENTINA
p- (54 11) 4982-4494/5243 ext 18; f- (54 11) 4982-0306
tablado@mail.retina.ar

TAHERA, QASEEM
UNIVERSITY OF KARACHI
MARINE REFERENCE COLLECTION
& RESOURCE CENTRE
KARACHI 75270 PAKISTAN
p- 9243131-7 ext. 2257, 2377; qaseem@mrc.ku.edu.pk

TAJIKI, KEN-ICHI
NIHON UNIVERSITY
SCHOOL OF MEDICINE, OYAGUCHI
DEPARTMENT OF BIOLOGY
ITABASHI, TOKYO 173 JAPAN

TAKAHASHI, KEIICHI
INTERNATIONAL CHRISTIAN
UNIVERSITY, DEPT BIOL
10-2, OSAWA 3-CHOME
MITAKA-SHI, TOKYO 181 JAPAN
p- (81) 422-33-3349; f- (81) 422-33-1449; keiichi@icu.ac.jp

TALBOT, TIFFANY D.
UNIV SOUTH FLORIDA
DEPT BIOLOGY
4202 E FOWLER AVE
TAMPA, FL 33620-5150
p- 813-974-2878; ttalbot@chuma.cas.usf.edu

TAVARES, YARA A. G.
CENTRO DE ESTUDOS DO MAR
UNIVERSIDADE FEDERAL DO PARANA
AV BEIRA MAR s/n BALNEARIO PONTAL DO SUL
PONTAL DO PARANA, PARANA 832555-000 BRAZIL
p- +55-41-455-13-33; f- +55-41-455-11-05
ytavares@aica.cem.ufpr.br

TELFORD, MALCOLM
UNIVERSITY OF TORONTO
DEPARTMENT OF ZOOLOGY
TORONTO, ONTARIO M5S 1A1 CANADA
p- 416-978-4843; f- 416-978-8532; telford@zoo.toronto.edu

TERRY, RICHARD E.
UNIVERSITY OF CINCINNATI
DEPARTMENT OF GEOLOGY
CINCINNATI, OH 45221

THANDAR, AHMED S.
UNIVERSITY OF DURBAN WESTVILLE
DEPARTMENT OF ZOOLOGY
P/BAG X54001
DURBAN 4000 SOUTH AFRICA
p- 27(31) 2044972; f- 27(31) 2044790
thandar@pixie.udw.ac.za

THAPANAND, THANITHA
KASETSART UNIVERSITY
DEPT FISHERY BIOLOGY
FACULTY OF FISHERIES
BANGKOK 10900 THAILAND
p- 66-2-5795575; f- 66-2-5795576; ffistnt@ku.ac.th OR
monica@thaicath.com

THIERRY, JACQUES
UNIVERSITE DE BOURGOGNE
CENTRE DES SCIENCES DE LA TERRE
& UMR-CNRS 5561, 6 BD GABRIEL
DIJON 21000 FRANCE
p- 33-3-80-39-63-62; f- 33-3-80-39-63-87
Jacques.Thierry@u-bourgogne.fr

THOMAS, FLORENCE I.M.
UNIV OF SOUTH FLORIDA
DEPARTMENT OF BIOLOGY
4202 EAST FOWLER AVE, LIF 136
TAMPA, FL 33620-5150
p- 813-974-9608; f- 813-974-3263; fthomas@chumal.cas.usf.edu

THOMASSIN, BERNARD
CENT.D'OCEANOGRAPHIE MARSEILLE
STATION MARINE D'ENDOUME
H TRAVERSE LA BATTERIE LIONS
MARSEILLE 13007 FRANCE

THOMPSON, LARRY
THE UNIVERSITY OF ALABAMA
SCIENTIFIC COLLECTIONS BLDG, RM 425
BOX 870345
TUSCALOOSA, AL 35487-0345

THORNDYKE, MICHAEL C.
DIRECTOR OF RESEARCH
ROYAL HOLLOWAY, UNIVERSITY OF LONDON
SCHOOL OF BIOLOGICAL SCIENCES
EGHAM, SURREY TW20 0EX ENGLAND UK
p- 01784-443766; f- 01784-470756; m.thorndyke@rhbnc.ac.uk

THORSEN, MARIANNE S.
UNIVERSITY OF COPENHAGEN
MARINE BIOLOGICAL LABORATORY
STRANDPROMENADEN 5
DK-3000 HELSINGOR, DENMARK
p- +45 49 213344; f- +45 49 261165; marilab@vm.uni-c.dk

TIAGO, CLAUDIO
CEBIMar-USP
UNIVERSIDADE DE SAO PAULO
CP 83
SAO SEBASTIAO-SP, 11600-970 BRAZIL
p- +55 12 462-6455; f- +55 12 462-6646; clgtiago@usp.br

TIEFENTHALER, LIESL
SOUTHERN CALIFORNIA COASTAL
WATER RESEARCH PROJECT
7171 FENWICK LANE
WESTMINSTER, CA 92683-5218
lieslt@sccwrp.org

TOMAS, FIONA
UNIVERSITY OF BARCELONA
DEPT ECOLOGY
645 DIAGONAL AVE
BARCELONA 08028 SPAIN
fiona@porthos.bio.ub.es

TOMINAGA, HIDEYUKI
FUKUI PREFECTURAL FUJISHIMA
SENIOR HIGH SCHOOL
2-8-30 BUNKYO
FUKUI CITY, FUKUI PREF 910-0017 JAPAN
p- (+81) 776-24-5171; f- (+81) 776-24-5171
kashipan@po.sphere.ne.jp

TOMMASI, LUIZ ROBERTO
CIDADE UNIVERSITARIA, BUTANTA
INSTITUTO OCEANOGRAFICO DA USP
CAIXA POSTAL NO 9075
SAO PAULO, SP 05508-900 BRAZIL
tommasi@mandic.com.br

TRONCOSO, JUAN F.
MUSEO HISTORIA NATURAL
CASILLA 1054
CONCEPCION, CHILE
p- 310932-227311; f- 41-225796; jmtronco@fundch.cl

TURNER, RICHARD L.
FLORIDA INST OF TECHNOLOGY
DEPT BIOLOGICAL SCIENCES
150 W UNIVERSITY BLVD
MELBOURNE, FL 32901-6975
p- 321-674-8196 or 321-674-8000 ext. 8196 or 8034
f- 321-674-7238 or 321-984-8461
rturner@fit.edu

TURON, XAVIER
UNIVERSITY OF BARCELONA
DEPT ANIMAL BIOLOGY (INVERTEBRATES)
645 DIAGONAL AVE
BARCELONA 08028 SPAIN
p- 34-93-4021441; f- 34-93-4035740
xaviert@porthos.bio.ub.es

TUTERA, PETER
87 GRAHAM ROAD
ROSANNA EAST 3084 AUSTRALIA
p- (03) 457-3448; f- (03) 480-5740

TYLER, PAUL A.
SOUTHAMPTON OCEANOGRAPHY CENTRE
DEPARTMENT OF OCEANOGRAPHY
EUROPEAN WAY
SOUTHAMPTON SO14 3ZH ENGLAND UK
p- +44(2380)592557; f- +44(2380)593059; pat8@soc.soton.ac.uk

UBAGHS, GEORGES J.
AVENUE BOIS LE COMTE 28
4140 SPRIMONT, BELGIUM
p- (04) 368-64-40

UEHARA, TSUYOSHI
UNIVERSITY OF THE RYUKYUS
COLLEGE OF SCIENCE, DEPT BIOLOGY
SENBARU 1, NISHIHARA-CHO
OKINAWA 903-01 JAPAN
p- 98-895-8897; ueharago@sci.u.ryukyu.ac.jp

URBINA BURGOS, MEDARDO
MEDICO CIRUJANO
SAN MARTIN 961
CONCEPCION, CHILE
p- (41) 246750; f- (41) 234135

UTHICKE, SVEN
AUSTRALIAN INSTITUTE MARINE SCIENCE
TOWNSVILLE, QLD 4810 AUSTRALIA
p- 0061-0747534444; f- 07-47725852; suthicke@aims.gov.au

UY, FREDERICK A.
BIOLOGY DEPT
UNIVERSITY OF SAN CARLOS
NASIPIT, TALAMBAN
CEBU CITY 6000 PHILIPPINES
Freduy@hotmail.com

v.JUTERZENKA, KAREN
INSTITUTE OF POLAR ECOLOGY
WISCHHOFSTR. 1-3
GEB 12
KIEL D-24148 GERMANY
p- +49 431 6001268; f- +49 431 6001210; kvjuterzenka@ipoe.de

VADAS, ROBERT L.
UNIVERSITY OF MAINE
DEPT PLANT BIOLOGY & PATHOLOGY
5722 DEERING HALL
ORONO, ME 04469-5722
p- 207-581-2974; f- 207-581-2969; vadas@maine.maine.edu

VADET, ALAIN
47 BLD EURVIN
BOULOGNE SUR MER 62200 FRANCE
p- 03 21 31 87 13; vadet.alain@wanadoo.fr

VAIL, LYLE
LIZARD ISLAND RESEARCH STATION
PMB 37
CAIRNS, QUEENSLAND 4870 AUSTRALIA
p- +61(0)7 4060 3977; f- +61(0)7 4060 3977
lizard@amsg.austmus.gov.au

VALENTINCIC, TINE
INSTITUTE OF BIOLOGY
ASKERCEVA 12
LJUBLJANA 61000 YUGOSLAVIA

VALENTINE, JOE
UNIVERSITY OF TASMANIA
DEPT ZOOLOGY
GPO BOX 252-05
HOBART, TASMANIA 7001 AUSTRALIA
p- 03 6226 2507; joseph_v@postoffice.sandybay.utas.edu.au

VALENTINE, JOHN
UNIVERSITY SOUTH ALABAMA
DAUPHIN ISLAND SEA LAB, BOX 369-370
DAUPHIN ISLAND, AL 36528
p- 334-361-7546; f- 334-361-7540
jvalenti@jaguar1.usouthal.edu

VAN DER HAM, RAYMOND W.J.M.
PIET HEINSTRAT 6
2628 RK DELFT, THE NETHERLANDS
p- 015-2612611

VAN HOUT, TESSA
GROOTREESDIJK 72
2460 KASTERLEE, BELGIUM
p- 0032 14 85.10.73; f- 0032 14 85.10.73; tvhout@vub.ac.be

VANDENSPIEGEL, DIDIER
ROYAL MUSEUM FOR CENTRAL AFRICA
INVERTEBRATE SECTION
TERVUREN 3080 BELGIUM
p- 32-2-7695411; f- 32-2-7695695; dvdspiegel@africamuseum.b

VANDERKLIFT, MAT
DEPT BOTANY
UNIVERSITY OF WESTERN AUSTRALIA
35 STIRLING HWY
NEDLANDS, WA 6907 AUSTRALIA
matvdk@cyllene.uwa.edu.au

VARAKSINA, GALINA S.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
f- 4232-310-900; faribm@visenet.marine.su

VAROTTO, RICARDO
MUSEU NACIONAL - UFRJ
DEPT INVERT- QUINTA DA BOA VISTA
s/n SAO CRISTOVAO
RIO DE JANEIRO RJ 20940-040 BRAZIL
p- +55 21 568-1319 ext.215; f- +55 21 568-8262 ext.232
rvarotto@acd.ufrj.br

VASKOVSKY, V. E.
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
f- 4232-310-900; vvas@imb.marine.su

VASQUEZ, JULIO
UNIVERSIDAD CATOLICA DEL NORTE
DEPARTAMENTO DE BIOLOGIA MARINA
CASILLA 117
COQUIMBO, CHILE
p- 56-51-321-263; f- 56-51-311-287
jvasquez@socompa.cecun.ucn.cl

VEATCH, STEVEN
780-A COLUMBINE VILLAGE DRIVE
WOODLAND PARK, CO 80863
p- 719-687-1056; sgeoveatch@worldnet.att.net

VEGA, JUAN TORRES
INST CIENC DEL MAR Y LIMNOL, UNAM
LAB DE ECOLOGIA DE EQUINODERMOS
APDO. POST. 70-305
MEXICO, D.F. 04510 MEXICO
p- 525-62258-02

VELAQUE, MARC
UNIV. DES SCIENCES DE LUMINY
LABORATOIRE D'E.B.V.M.
CASE 901-70 RT LEON LACHAMP
13288 MARSEILLE CEDEX 9 FRANCE

VELARDE, RONALD G.
CITY OF SAN DIEGO MARINE BIOLOGY LABORATORY
4918 NORTH HARBOR DR
SAN DIEGO, CA 92106
p- 619-758-2331; f- 619-758-2350; rgv@sddpc.sannet.gov

VENTURA, CARLOS RENATO R.
UNIV FEDERAL RIO DE JANEIRO
MUSEU NACIONAL, DEPT INVERTEBRADOS
QUINTA DA BOA VISTA, SAO CRISTOVAO
RIO DE JANEIRO, RJ 20940-040 BRAZIL
p- +55-21-568-1149; f- +55-21-568-1314; ventura@acd.ufrj.br

VERLING, EMMA
UNIVERSITY COLLEGE CORK
DEPT ZOOL & ANIMAL ECOLOGY
LEE MALTINGS, CORK IRELAND
p- 051 384612; f- (021) 270562; emmaverling@hotmail.com

VIADA, STEPHEN T.
CONTINENTAL SHELF ASSOC, INC
759 PARKWAY ST
JUPITER, FL 33477
p- 561-746-7946; f- 561-747-2954; sviada@conshelf.com

VICKERY, MINAKO
UNIV OF ALABAMA AT BIRMINGHAM
DEPT BIOLOGY, CAMPBELL HALL
1300 UNIVERSITY BOULEVARD
BIRMINGHAM, AL 35294-1170
minakos@norm.dpo.uab.edu

VIKTOROVSKAYA, GALINA I.
TINRO - PACIFIC RESEARCH FISHERY CENTER
4 SHEVCHENKO ALLEY
VLADIVOSTOK 690600 RUSSIA
p- 7-423-225-95-04; f- 7-423-225-77-83; root@tinro.marine.su

VILLALOBOS, FRANCISCO
UNIVERSIDAD DEL MAR
KM 1.5 CARR. A ZIPOLITE
PUERTO ANGEL, OAXACA 70902 MEXICO
p- 958-4-30-57; f- 958-4-30-78; benitez@angel.umar.mx

VILLIER, LOIC
CENTRE DES SCIENCES DE LA TERRE
et UMR CNRS 5561
6, BD. GABRIEL
DIJON F-21000 FRANCE
L.villier@u-bourgogne.fr

VISTISEN, BODIL K.
UNIVERSITY OF COPENHAGEN
MARINE BIOLOGICAL LABORATORY
STRANDPROMENADEN 5
HELINGOR DK-3000 DENMARK
p- +45 49 213344; f- +45 49 261165

VIVIANI, CARLOS A.
UNIVERSIDAD DE LA SERENA
CAMPUS ENRIQUE MOLINA
LA SERENA, CHILE

VOLBEHR, UTE
INSTITUTO DE LA PATAGONIA
UNIVERSIDAD DE MAGALLANES
CASILLA 113-D
PUNTA ARENAS, CHILE
f- 56-61-210567; uivolbehr@aoniken.fc.umag.cl

VON BRAND, ELISABETH
UNIVERSIDAD CATOLICA DEL NORTE
DEPTO BIOLOGIA MARINA
CASILLA 117, COQUIMBO, CHILE
p- (56) 51-321263; f- (56) 51-311287
evonbran@socompa.cecun.ucn.cl

VOOGT, PETER A.
UNIVERSITY OF UTRECHT
CHEMICAL ANIMAL PHYSIOLOGY
5 PRINCETON PLEIN
3584 CC UTRECHT, THE NETHERLANDS

WALKER, CHARLES W.
UNIVERSITY OF NEW HAMPSHIRE
DEPT ZOOLOGY, RUDMAN HALL
DURHAM, NH 03824
p- 603-862-2111; f- 603-862-3784; cwwalker@christa.unh.edu

WALLACE, BRENDA
UNIV OF ALABAMA AT BIRMINGHAM
DEPT BIOLOGY
1300 UNIVERSITY BLVD
BIRMINGHAM, AL 35294-1170
p- 205-934-8313; f- 205-975-6097; bwallace@uab.edu

WARD, KEITH B.
BIOMOLECULAR & BIOSYSTEMS SCIENCES
& TECHNOLOGY DIVISION
800 N QUINCY ST
ARLINGTON, VA 22217-5660

WAREN, ANDERS H.
SWEDISH MUSEUM OF NATURAL HISTORY
DEPARTMENT INVERTEBRATE ZOOLOGY
BOX 50007
STOCKHOLM SE-10405 SWEDEN
p- +46-8-5195 4086; f- +46-8-5195 4125; anders.waren@nrm.se

WATERS, JOHNNY A.
WEST GEORGIA COLLEGE
DEPARTMENT OF GEOLOGY
CARROLLTON, GA 30118
jwaters@uga.cc.uga.edu

WATERS, JONATHAN
UNIVERSITY OF OTAGO
DEPT ZOOLOGY
PO BOX 56
DUNEDIN, NEW ZEALAND
p- +64-3-479-5434; f- +64-3-479-7584
jonathan.waters@toroa.otago.ac.nz

WATTS, STEPHEN A.
UNIV OF ALABAMA AT BIRMINGHAM
DEPT BIOLOGY, CAMPBELL HALL
1300 UNIVERSITY BLVD
BIRMINGHAM, AL 35294-1170
p- 205-934-8308; f- 205-975-6097; sawatts@uab.edu

WEBER, WALTER
ZOOLOG. INSTITUTE, ANIMAL PHYSIO
UNIVERSITY OF COLOGNE
15 COLOGNE 41
WEYERTAL 119 GERMANY

WEBSTER, GARY D.
WASHINGTON STATE UNIVERSITY
DEPARTMENT OF GEOLOGY
PHYSICAL SCIENCE 1228
PULLMAN, WA 99164-2812
p- 509-335-4369; f- 509-335-7816; webster@wsu.edu

WELSCH, ULRICH
ANATOMISCHE ANSTALT
UNIVERSITÄT MÜNCHEN
PETTENKOFERSTRASSE 11
MÜNCHEN 80336 GERMANY
p- +49 89 5160 4821; f- +49 089 5160 4897
welsch@anat.med.uni.muenchen.de

WHITE, CHRIS
NOVA UNIV OCEANOGRAPHIC CENTER
8000 NORTH OCEAN DRIVE
DANIA, FL 33004
p- 954-722-1731; f- 305-947-8559; whitec@ocean.nova.edu

WIDDISON, ROSANNE E.
15 MANOR CLOSE
NOTTON, WAKEFIELD
WEST YORKSHIRE WF4 2NH ENGLAND UK
p- +44 121 4143486; f- +44 121 4144942
rewiddison@hotmail.com

WIEDENMEYER, W.
INSTITUT FÜR MEERESKUNDE
ABT. FISCHEREIBIOLOGIE
DÜSTERNBROOKER WEG 20
KIEL D-24105 GERMANY

WIGHAM, BEN
DEEPSEAS RESEARCH GROUP
SOUTHAMPTON OCEANOGRAPHY CENTRE
EMPRESS DOCK, EUROPEAN WAY
SOUTHAMPTON SO14 3ZH ENGLAND UK
p- +44(0)1703 596357/59; f- +44(0)1703 596247
bdw@soc.soton.ac.uk

WILKIE, IAIN C.
GLASGOW CALEDONIAN UNIVERSITY
SCHOOL BIOLOGICAL & BIOMEDICAL SCIENCES
70 COWCADDENS ROAD
GLASGOW G4 0BA SCOTLAND UK
p- 0141-331-8515; f- 0141-331-3208; i.Wilkie@gcal.ac.uk

WILLCOX, MARK S.
LIVERPOOL JOHN MOORES UNIV
BIOLOGICAL & EARTH SCIENCES
BYROM STREET
LIVERPOOL L3 3AF ENGLAND UK
p- 00 44 151-231-2026; f- 00 44 151-298-1014
m.willcox@livjm.ac.uk

WILLIAMSON, JANE E.
THE UNIVERSITY OF NEW SOUTH WALES
SCHOOL OF BIOLOGICAL SCIENCE
SYDNEY NSW 2052 AUSTRALIA
p- (02) 9385 2080; f- (02) 9385 1558; j.williamson@unsw.edu.au

WILSON, MALANIA M.
1280 FREIL RD
PALM BAY, FL 32905
p- 407-984-5352; mwilson@fit.edu

WIRTZ, PETER
UNIVERSIDADE DA MADEIRA
LARGO DO COLEGIO
FUNCHAL P-9000 PORTUGAL
peter.wirtz@clix.pt

WOERHEIDE, GERT
QUEENSLAND CENTRE FOR BIODIVERSITY
QUEENSLAND MUSEUM
PO BOX 3300
SOUTH BRISBANE, QLD 4101 AUSTRALIA
p- +61-7-38429173; f- +61-7-38461226; GertW@qm.qld.gov.au

WOOD, JANELLE A.
FLORIDA INST OF TECHNOLOGY
DEPT OF BIOLOGICAL SCIENCES
150 W UNIVERSITY BLVD
MELBOURNE, FL 32901-6975
p- 407-984-2640; f- 407-984-8461; janelle@winnie.fit.edu

WOODLEY, JEREMY D.
3 HELEN ST
DUNDAS, ONTARIO L9H 1N2 CANADA
p- 905-627-0393; f- 905-627-3966; jdwoodley@hotmail.com

WOODLEY, JEREMY D.
CENTRE FOR MARINE SCIENCES
UNIV OF WEST INDIES (MONA)
KINGSTON 7, JAMAICA WEST INDIES
woodley@uwimona.edu.jm

WRAY, GREGORY A.
DUKE UNIVERSITY
DEPT BIOLOGY
BOX 90325
DURHAM, NC 27708-0325
p- 919-684-6696; f- 919-684-6168; gwrays@duke.edu

YAKOVLEV, SERGHEY N.
INSTITUTE OF MARINE BIOLOGY
RUSSIAN ACAD SCI
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
p- 7-423-231-09-06; f- 7-423-231-09-00
faribm@visenet.iasnet.com

YAKOVLEV, YURI
INSTITUTE OF MARINE BIOLOGY
PALCHEVSKY 17
VLADIVOSTOK 690041 RUSSIA
f- 4232-310-900; faribm@visenet.marine.su

YAMAGUCHI, MASASHI
UNIVERSITY OF THE RYUKYUS
DEPT MARINE SCIENCES
SENBARU 1, NISHIHARA
OKINAWA 903-01 JAPAN
p- +81-98-895-8561; f- +81-98-895-2414
coral@sci.u-ryukyu.ac.jp

YANAGISAWA, TOMIO
OGASAWARA RESEARCH STATION
TOKYO METROPOLITAN UNIV.
CHICHI-JIMA, OGASAWARA
TOKYO 100-21 JAPAN
p- 04998-2-2981; f- 04998-2-2981

YANG, MEI-SUN
ALASKA FISHERIES SCIENCE CENTER
BLDG 4, REFM, BIN C15700
7600 SAND POINT WAY NE
SEATTLE, WA 98115-0070
p- 206-526-4222; f- 206-526-6723; mei-sun.yang@noaa.gov

YEEMIN, THAMASAK
RAMKHAMHAENG UNIVERSITY
MARINE BIODIVERSITY RESEARCH GROUP
DEPT BIOLOGY, FACULTY OF SCIENCE
BANGKOK, 10240 THAILAND
p- 662-3195219 ext. 244; f- 662-3195219 ext. 244
thamasakyeemin@hotmail.com

YEVDOKIMOV, ALEXANDR
34-21 UTKINSKAYA STREET
VLADIVOSTOK PRIMORSKY 690002 RUSSIA
p- 4232-413450; f- 4232-410522; dunupi@hotmail.com

YOKOTA, YUKIO
AICHI PREFECTURAL UNIVERSITY
DEPT APPLIED INFO TECH, BIOL LAB
NAGAKUTE, AICHI
AICHI 480-1198 JAPAN
p- +81-561-64-1111 ext 3308 or 3320; f- +81-561-64-1108

YOSHIZATO, KATSUTOSHI
HIROSHIMA UNIVERSITY
DEPT OF BIOL SCIENCE
1-3-1, KAGAMIYAMA
HIGASHI-HIROSHIMA 724 JAPAN
p- 81-824-24-7440; f- 81-824-24-1492
kyoshiz@ue.ipc.hiroshima-u.ac.jp

YOUNG, CRAIG
HARBOR BRANCH OCEANOGR INST
DEPT. LARVAL ECOLOGY
5600 OLD DIXIE HIGHWAY
FORT PIERCE, FL 34946
p- 407-465-2400 ext 303; f- 407-488-0757
youngc@hboi.edu

YRAG, CHERRYL
4TH- 21ST ST, NAZARETH
CAGAYAN DE ORO CITY 9000 PHILIPPINES
p- 8581714; kingkoi@mailcity.com

YUND, PHIL
DARLING MARINE CENTER
193 CLARKS COVE RD
WALPOLE, ME 04573
p- 207-563-3146 EXT. 217; f- 207-563-3119
philyund@maine.maine.edu

ZADOROZHNY, PAVEL
TINRO
PACIFIC RESEARCH FISHERY CENTER
4 SHEVCHENKO ALLEY
VLADIVOSTOK 690600 RUSSIA
p- (07-4232)-257783; root@tinro.marine.su

ZAGHBIB-TURKI, D.
DEPT. SCIENCES DE LA TERRE
FACULTE DES SCIENCES DE TUNIS
CAMPUS UNIVERSITAIRE
TUNIS 1060 TUNISIA
p- 216-1-512-600; f- 216-1-500-666

ZARDUS, JOHN D.
DEPT BIOLOGY
UNIV MASSACHUSETTS, BOSTON
100 MORRISSEY BLVD
BOSTON, MA 02125
p- 617-287-6620; f- 617-287-6650; john.zardus@umb.edu

ZAVODNIK, DUSAN V.
CENTER MARINE RESEARCH ROVINJ
"RUDJER BOSKOVIC" INSTITUTE
ROVINJ HR-52210 CROATIA
p- 385-52-804-722; f- 385-52-813-496; dzavodnik@cim.irb.hr

ZEIDLER, WOLFGANG
SOUTH AUSTRALIAN MUSEUM
NORTH TERRACE
ADELAIDE, S.A. 5000 AUSTRALIA
p- +618 2077491; f- +618 2077222
samuseum@ozemail.com.au

ZITT, JIRI
CZECH ACADEMY OF SCIENCES
GEOLOGICAL INSTITUTE
ROZVOJOVA 135
165 00 PRAGUE 6, CZECH REPUBLIC
p- 24-31-14-21; f- 24-31-15-78
zitt@gli.cas.cz

ECHINODERM SPECIALIST'S KEYWORD LIST

ABREU, MARIA HELENA ECHINOIDEA
 ABREU, MERCEDES SYSTEMATICS ECOLOGY
 ADAMS, NIKKI UV SEA-URCHIN EGG EMBRYO DEVELOPMENT
 ADAMS, SEREAN CRYOPRESERVATION EMBRYO EGGS LARVAE *Evechinus chloroticus*
 ADDISON, JASON GENE-FLOW DISPERSAL EVOLUTION MICROSATELLITE-DNA
 AGATSUMA, YUKIO ECHINOIDEA ECOLOGY POPULATION-DYNAMICS
 AHEARN, CYNTHIA AXONOMY HOLOTHUROIDEA ASTEROIDEA ECHINOIDEA OPHIUROIDEA
 AHLGREN, MOLLY HOLOTHUROIDEA DEPOSIT-FEEDING
 ALBI, YVONNE ECHINOIDEA PALEOCENE
 ALCOCK, NICOLA REPRODUCTION TAXONOMY DISTRIBUTION-and-ABUNDANCE
 ALL, MOHAMED SAID ECHINOIDEA TERTIARY MESOZOIC
 ALLEN, JOHN BIODIVERSITY FUNCTIONAL-MORPHOLOGY
 ALLISON, WILLIAM TAXONOMY ECOLOGY BIOGEOGRAPHY FORAGING ASTEROIDEA
 AMEZIANE, NADIA CRINOIDEA
 ANDACHT, TRACY ECHINOIDEA DEVELOPMENT DISPERSAL
 ANDERSON, OWEN ECHINOIDEA MARINE-ECOLOGY POPULATION-BIOLOGY TAXONOMY
 ANDERSON, ROLAND TAXONOMY AQUARIUM-HUSBANDRY NATURAL-HISTORY
 ARAKAKI, YUJI ECHINOIDEA ECHINOMETRA TAXONOMY PHYLOGENY
 ARCHER, JEFFREY ECHINODERMS AQUACULTURE SEA-CUCUMBER HOLOTHURIA BECHE-DE-MER AQUARIUMS
 ARISOLA, AMELIA CULTURE MEDICINAL-VALUE BIOLOGY
 ARONSON, RICHARD PREDATION-ON-ECHINODERMS Tropics to Antarctica
 ASHA, PA YIKAT S. SEA-CUCUMBER TAXONOMY NUTRITION ECOLOGY BIOLOGY HATCHERY CULTURE
 AUSICH, WILLIAM CRINOIDEA TAPHONOMY PHYLOGENY TAXONOMY
 BALHOFF, JAMES MOLECULAR-EVOLUTION SEA-URCHINS
 BALSER, ELIZABETH EVOLUTION DEVELOPMENT MORPHOLOGY PHYSIOLOGY
 BANGI, HELEN GRACE CULTURE MANAGEMENT REPRODUCTION
 BARBOSA LESDESMA, ISRAEL ECHINOIDEA CIDARIDAE TAXONOMY
 BARICCHI, ELISA CRINOIDEA COMATULIDA
 BARKER, MICHAEL REPRODUCTION FEEDING OPHIUROIDEA
 BARTSCH, ILSE OPHIUROIDEA
 BASCH, LARRY ECHINOIDEA ASTEROIDEA LARVAE JUVENILES BENTHIC-POPULATION COMMUNITY-ECOLOGY
 BAUER, JOHN ECHINOIDEA DISEASE BACTERIA FLAGELLATES
 BAUMILLER, TOMASZ CRINOIDEA ISOCRINIDS FOSSIL RECENT
 BAZHIN, ALEXANDER ECHINOIDEA POPULATION
 BEAVER, HAROLD BLASTOIDS MORPHOLOGY SYSTEMATICS
 BECKER, JOHANN SYSTEMATICS ECOLOGY ZOOGEOGRAPHY
 BEGBIE, KIRSTEN OPHIUROIDEA
 BELL, BRUCE TAXONOMY FUNCTIONAL-MORPHOLOGY
 BELL, MIKE OPHIUROIDEA ASTEROID PALEOBIOLOGY LOWER-CRETACEOUS
 BENAVIDES, MILENA TAXONOMY SYSTEMATICS
 BENTLEY, ANDREW ECHINOIDEA GENETICS BIOLOGY PALAEOONTOLOGY
 BERENTS, PENELOPE ECHINODERM-COLLECTIONS AUSTRALIA INDO-WEST-PACIFIC
 BERGEN, MARY HOLOTHUROIDEA TAXONOMY
 BERTRAM, DOUGLAS ECHINOIDEA LARVAE EVOLUTION ECOLOGY DEVELOPMENT
 BIERMANN, CHRISTIANE SPECIATION POPULATION-GENETICS MOLECULAR-EVOLUTION GAMETIC-REPRODUCTIVE-ISOLATION
 -(in camarodont urchins)
 BILLET, DAVID TAXONOMY HOLOTHUROIDEA
 BIN ABDUL ADZIS, KEE ALFIAN SEA-URCHIN *Diadema setosum* POPULATION-DYNAMICS GUT-CONTENT SIZE-FREQUENCY
 BIRENHEIDE, RUEDIGER BIOMECHANICS AQUACULTURE
 BIRKELAND, CHARLES CORAL-REEF-ECOSYSTEM-MANAGEMENT
 BIRYUKOVA, INGA CHEMORECEPTION SENSORY-SYSTEMS MIGRATIONS
 BITTER, RICARDO TAXONOMY BIODIVERSITY TROPHIC-STRUCTURE COMMUNITY
 BLACK, ROBERT ECOLOGY FUNCTIONAL-MORPHOLOGY POPULATION-DYNAMICS ECHINOIDEA
 BLAKE, DANIEL ASTEROIDEA PHYLOGENY PALEOECOLOGY
 BOCKELIE, JOHAN ONTOGENY TAXONOMY FUNCTIONAL-MORPHOLOGY
 BO CZAROWSKI, ANDRZEJ HOLOTHUROIDEA ASTEROIDEA OPHIUROIDEA CYCLOCYSTOIDEA OPHIOCISTIOIDEA ECHINOIDEA
 PALEOECOLOGY ANATOMY SYSTEMATICS FOSSIL RECENT
 BOETTGER, ANNE PHYSIOLOGY BEHAVIOR ECHINOIDEA

BONASORO, FRANCESCO CRINOIDEA REGENERATION ECHINOIDEA MUTABLE-COLLAGENOUS-TISSUE
 BORGES, MICHELA OPHIUROIDEA SYSTEMATICS ECOLOGY
 BORRERO, GIOMAR TAXONOMY ECHINODERMS CARIBBEAN
 BORZONE, CARLOS POPULATION-DYNAMICS ECOLOGY CULTURE
 BOSCH, ISIDRO LARVAL-ECOLOGY REPRODUCTION LIFE-HISTORY-EVOLUTION
 BOUDOURESQUE, CHARLES *Paracentrotus-lividus* FEEDING-BEHAVIOR NUTRITION ECOLOGY ECHINOIDEA
 BRAY, RICHARD OPHIUROIDEA ECOLOGY MICROSTRUCTURE
 BREGMAN, YURIY SIZE-AGE-STRUCTURE GROWTH MORTALITY RECRUITMENT
 BRETON, GERARD ASTEROIDEA CRINOIDEA EVOLUTION TAXONOMY CRETACEOUS
 BREWIN, PAUL ECHINOIDEA
 BREY, THOMAS GROWTH MORTALITY PRODUCTIVITY TROPHIC-LINKS
 BROGGER, MARTIN BIODIVERSITY TROPHIC-ECOLOGY ASTEROIDEA
 BROWER, JAMES PALEOBIOLOGY PALEOZOIC CRINOIDEA BLASTOZOA
 BUARUANG, JAMREARN BIOLOGY ECOLOGY POLLUTION ENVIRONMENT
 BUITRON-SANCHEZ, BLANCA FOSSIL CENOZOIC ASTEROIDEA ECHINOIDEA
 BUNDRICK, CARLA TAXONOMY LARVAL-DEVELOPMENT OPHIUROIDEA
 BURCH, BEATRICE BIODIVERSITY
 BURNS, CASEY PALEONTOLOGY TAPHONOMY COLD-SEEP EOCENE OLIGOCENE
 BUSSARA WIT, SOMCHAI TAXONOMY ECHINODERMS ANDAMAN-SEA
 BUSTER, PETER STRATIGRAPHY DISTRIBUTION
 BUSTOS ROJAS, HECTOR CULTURE NUTRITION REPRODUCTION GENETICS
 BYRNE, MARIA DEVELOPMENT REPRODUCTION EVOLUTION FUNCTIONAL-MORPHOLOGY
 CAMERON, R. ANDREW EMBRYONIC-DEVELOPMENT LARVAL-DEVELOPMENT POPULATION-GENETICS
 CAMPAGNA, SOPHIE HOLOTHUROIDEA SEA-CUCUMBER PARASTICHOPUS POPULATION-DYNAMICS STOCK-ASSESSMENT
 CAMPBELL, ALAN ECOLOGY POPULATION FISHERY ECHINOIDEA HOLOTHUROIDEA
 CAMPBELL, ANDREW ECHINOIDEA ASTEROIDEA PEDICELLARIAE BEHAVIOUR ECOLOGY CORAL-REEFS
 CAMPBELL, DAVID ASTEROIDEA PREDATION SYSTEMATICS BEHAVIOR ECOLOGY
 CAMPOS-CREASEY, LUCIA TAXONOMY SYSTEMATICS HOLOTHUROIDEA
 CANDIA-CARNEVALI, M. D. ECHINOIDEA OPHIUROIDEA CRINOIDEA REPRODUCTION
 CANNON, LESTER ECHINODERM-HOSTS-PARASITES
 CARDER, NANCY TAXONOMY
 CAREY JR, ANDREW MARINE-BENTHIC-ECOLOGY
 CARROLL, DAVID FERTILIZATION EARLY-DEVELOPMENT EGG SPERM CALCIUM SEA-URCHIN STARFISH
 DEVELOPMENTAL-BIOLOGY SIGNAL-TRANSDUCTION CLONING EGG-ACTIVATION
 ECOLOGY HUMAN-PREDATION POLLUTION
 SEA-URCHIN-MARICULTURE
 ASEXUAL-REPRODUCTION POPULATION-ECOLOGY LIFE-HISTORY SYSTEMATICS
 OPHIUROIDEA ECOLOGY HABITAT-PREFERENCE
 SPECIATION EVOLUTION BIODIVERSITY POPULATION-GENETICS MOLECULAR-MARKERS DNA DALP VNTR
 REPRODUCTION LARVAL-DEVELOPMENT EVOLUTION
 HOLOTHUROIDEA TAXONOMY
 ECHINOIDEA PHYLOGENY
 OPHIUROIDEA PHYSIOLOGY RESPIRATION BEHAVIOR
 CINTRA BUENROSTRO, CARLOS BIOGEOGRAPHY TAXONOMY ECOLOGY EVOLUTION
 CLARK, ROGER TAXONOMY BIODIVERSITY ASTEROIDEA ALASKA NORTH-PACIFIC PTERASTERIDAE SOLASTERIDAE
Hippasteria
 OPHIUROIDEA ECHINOIDEA GENE-EXPRESSION REGENERATION LARVAL-TOXICOLOGY
 HOLOTHUROIDEA BEHAVIOR TAXONOMY ECOLOGY MICRONESIAN
 OPHIUROIDEA TAXONOMY BIOGEOGRAPHY ANTARCTIC
 TROPICAL-REEFS HOLOTHURIANS URCHINS EXPLOITATION ECOLOGY
 ASTEROIDEA EMBRYOLOGY ECOLOGY BEHAVIOUR
 BURROWING-SEA-URCHINS *Paracentrotus-lividus* *Psammechinus-miliaris* POPULATION-DYNAMICS
 BIOZOOGEOGRAPHY TAXONOMY SYSTEMATICS ECOLOGY
 ECHINOIDEA REPRODUCTION LYTECHINUS-VARIEGATUS
 ECHINOIDEA ECOLOGY TERATOLOGY POLLUTION-EFFECTS
 ENVIRONMENTAL-IMPACT SEDIMENTATION WASTE AQUACULTURE
 ASTEROIDEA OPHIUROIDEA BEHAVIOR-ECOLOGY
 TAXONOMY REPRODUCTION ASTERINIDAE
 ECOLOGY ULTRASTRUCTURE ECHINODERM LARVAE
 ECHINOIDEA PALEONTOLOGY PHYLOGENY
 STALKED-CRINOIDS ONTOGENY BATHYMETRY
 SEA-URCHIN-FISHERY ECOLOGY
 OPHIUROIDEA PRODUCTION REPRODUCTION SUSPENSION-FEEDING C-AND-N-FLUXES
 ECOLOGY SYSTEMATICS LIFE-HISTORY CONSERVATION
 ECHINOIDEA SYMBIOSES FEEDING-MECHANISMS TAXONOMY ZOOGEOGRAPHY
 ECHINOIDEA FLINT-PLEISTOCENE-DEPOSITS
 ECHINOIDEA PALEONTOLOGY PHYLOGENY

DEARBORN, JOHN CRINOIDEA OPHIUROIDEA FUNCTIONAL-ANATOMY ECOLOGY TAXONOMY
 DEHEYN, DIMITRI OPHIUROIDEA BIOLUMINESCENCE ECOTOXICOLOGY PHYSIOLOGICAL-STRESS
 DEL VALLE, ROSA HOLOTHUROIDEA
 DETWILER, PAUL ECHINOIDEA POPULATION-DYNAMICS PHENOTYPIC-PLASTICITY LIFE-HISTORY
 ECHINOID-CORAL-INTERACTIONS
 DEUTZMANN, HELMUT ASTEROIDEA RECENT SYSTEMATICS
 DEVIN, MICHAEL DEVELOPMENT-ECHINODERM-AQUACULTURE-TECHNIQUES
 DEWAEL, YANNICK OPHIUROIDEA BIOLUMINESCENCE PHYSIOLOGY NERVOUS-CONTROL
 DIEHL, WALTER NATURAL-SELECTION
 DOBSON, WILLIAM OPHIUROIDEA ECOLOGY
 DOLMATOV, IGOR REGENERATION-MECHANISMS MORPHOLOGY DEVELOPMENT ECOLOGY
 DOMINGUEZ ALONSO, PATRICIO CARPOIDEA CTENOCYSTOIDEA CORNUTA MITRATA SOLUTA CINCTA CALCICHORDATES CYSTOIDS
 PENTAMERISM SPAIN CAMBRIAN ORDOVICIAN FUNCTION PHYLOGENY EVOLUTION TOMOGRAPHY 3D
 DONOVAN, STEPHEN PALAEONTOLOGY BRITISH-ISLES CARIBBEAN ECHINOIDEA CRINOIDEA
 DORNBOSS, STEPHEN HELICOPALCOIDEA PALEOECOLOGY CAMBRIAN
 DRUMM, DARRIN HOLOTHUROIDEA FISHERIES
 DRUMMOND, ANNE ECHINOIDEA ECOLOGY REPRODUCTION LIFE-HISTORY
 DUPONT, SAMUEL *Amphipholis-squamata* BIOLUMINESCENCE MICROEVOLUTION INTRASPECIFIC-VARIABILITY
 DY, DANILO ECOPHYSIOLOGY NUTRIENT-EXCRETION OXYGEN-CONSUMPTION ENERGETICS
 EAGLE, MIKE CRINOIDEA ASTEROIDEA ECHINOIDEA OPHIUROIDEA
 EBERT, THOMAS LIFE-HISTORIES DEMOGRAPHY
 EBLE, GUNTHER BIODIVERSITY DEVELOPMENT EVOLUTION
 ELISEIKINA, MARINA REGENERATION-MECHANISMS MORPHOLOGY IMMUNOLOGY
 ELLERS, OLAF ECHINOIDEA BIOMECHANICS EVOLUTION ECOLOGY
 EMLET, RICHARD LARVAE SEA-URCHINS PLANKTONIC-FORMS DEVELOPMENT
 EMSON, ROLAND ECOLOGY
 ENTRAMBASAGUAS, LAURA BIOGEOGRAPHY LARVAE-and-EVOLUTION SPATIAL-and-TEMPORAL-DISTRIBUTION SEA-URCHINS
 ESCRIBANO RODENAS, M. PALEOBIOLOGY MORPHOLOGY DIPLOPORITA SPAIN
 ESTREMADURA, D. PHYSALUS
 ETNIER, SHELLEY CRINOIDEA BIOMECHANICS DEVELOPMENT
 ETTENSOHN, FRANK TAXONOMY FUNCTIONAL-MORPHOLOGY PALEOECOLOGY CRINOIDEA
 EVDOKIMOV, VLADIMIR ECHINOIDEA ONTOGENESIS COMMUNITIES
 FARMANFARMAIAN, A. VERDI PHYSIOLOGY BIOCHEMISTRY MOLECULAR
 FAUVILLE, GERALDINE BIOLUMINESCENCE OPHIUROIDEA *Amphipholis-squamata*
 FEDER, HOWARD DISTRIBUTION FEEDING-BIOLOGY PREDATOR-PREY-INTERACTIONS
 FEINBERG, JOSHUA OPHIUROIDEA
 FELL, F. JULIAN GROWTH TAXONOMY BIOGEOGRAPHY ANTARCTICA
 FERAI, JEAN-PIERRE SPECIATION EVOLUTION DEVELOPMENT BIODIVERSITY GENETICS MOLECULAR-PHYLOGENY
 FERGUSON, JOHN PHYSIOLOGY FUNCTIONAL-ANATOMY
 FERNANDEZ, CATHERINE ECHINOIDEA NUTRITION GROWTH AQUACULTURE LAGOONAL-ENVIRONMENT-ECOLOGY
 FERRAZ, ROGERIO FISHERIES-MANAGEMENT AZORES
 FERRIER, DREW OPHIUROIDEA ECOLOGY DISTRIBUTION FEEDING BEHAVIOR
 FLAMMANG, PATRICK FUNCTIONAL-MORPHOLOGY BIOCHEMISTRY ADHESION BIOMECHANICS
 FLOWERS, JONATHAN MOLECULAR-BIOLOGY MORPHOLOGY
 FOLLOSCO, MINDA CULTURE BIODIVERSITY
 FOLTZ, DAVID MOLECULAR-EVOLUTION PHYLOGENETICS
 FONTANELLA, FRANK ASTEROIDEA TAXONOMY
 FOSSHAGEN, HARALD OPHIUROIDEA LOPHELIA
 FOSTER, MERRILL TAXONOMY BIODIVERSITY ECOLOGY EVOLUTION
 FOX, DAVID OPHIUROIDEA OSSICLES BEHAVIOR
 FRANCOUR, PATRICE BIODIVERSITY ENVIRONMENTAL-IMPACT *Centrostephanus*
 FREEMAN, STEVEN BIODIVERSITY ECOLOGY
 FRONTANA URIBE, SARITA ECHINODERMATA TAXONOMY MEXICO
 FRYE, BRIAN ECHINOIDEA MORPHOMETRICS
 FUJITA, TOSHIHIKO ECOLOGY TAXONOMY OPHIUROIDEA ASTEROIDEA
 GAGE, JOHN DEMOGRAPHY GROWTH BIODIVERSITY
 GAGNON, JEAN-MARC ECOLOGY BEHAVIOUR BIOTURBATION TAXONOMY
 GAHN, FOREST CRINOIDEA PALEOBIOLOGY
 GALLEMI, JAUME ECHINOIDEA CRETACEOUS SYSTEMATICS BIOSTRATIGRAPHY PALAEOECOLOGY
 GALLEY, ELIZABETH ANTARCTICA SEASONALITY REPRODUCTION
 GANDOLFI, SILVIA MARIA ASTEROIDEA ECOLOGY BEHAVIOR FORAGING-ACTIVITY
 GARRISON, ROBERT ECHINOIDEA AQUACULTURE
 GEBRUK, ANDREY HOLOTHUROIDEA TAXONOMY
 GENTIL, FRANCK OPHIUROIDEA POPULATION
 GEORGE, SOPHIE ECOLOGY BIOCHEMISTRY BEHAVIOUR MORPHOLOGY
 GIBBS, BARBARA TAXONOMY
 GIBSON, MICHAEL PALEOECOLOGY BIOTIC-INTERACTIONS DEVONIAN

GIELAZYN, MICHEL	TOXICOLOGY FEEDING-BEHAVIOR ECOLOGY OPHIUROIDEA
GIL CID, MARIA DOLORES	BIODIVERSITY-&-EXTINCTION-EVENTS PALEOECOLOGY-TRENDS MORPHOLOGY PALEOBIOLOGY CAMBRIAN ORDOVICIAN SILURIAN
GIRANOVA, TALIA	MUSCLE-REGENERATION-MECHANISMS
GIRASPY, D.A. BENI	ECOLOGY BIOLOGY MARICULTURE
GIUDICE, GIOVANNI	MOLECULAR-BIOLOGY DEVELOPMENTAL-BIOLOGY
GIULIANO, LAURA	SYMBIOTIC-OR-PATHOGENIC-BACTERIA-COLONIZING-SEA-URCHINS
GLENN, KRITON	BIODIVERSITY DISTRIBUTION-PATTERNS HABITAT
GLUCHOWSKI, EDWARD	CRINOIDEA TAXONOMY BIOSTRATIGRAPHY PALEOECOLOGY
GOGGIN, LOUISE	ASTEROIDEA PATHOLOGY PARASITES BIOLOGICAL-CONTROL
GOLDSCHMID, ALFRED	ECHINOIDEA MORPHOLOGY BIODIVERSITY EVOLUTION STRUCTURE-and-FUNCTION-of-AXIAL-ORGAN PODOCYTES
GONGADZE, GURAM	ECHINOIDEA LATE-CRETACEOUS PALEOGENE EVOLUTION SYSTEMATICS PALEOBIOGEOGRAPHY STRATIGRAPHY
GOODING, RICHARD	ECHINOIDEA DIADEMATID-ASSOCIATIONS
GORCHAKOV, IGOR	ECOLOGY PHYSIOLOGY LIFE-HISTORY
GOUVEIA-MONTEIRO, ANA M.	OPHIUROIDEA
GRABOWSKY-KAAIALII, GAIL	MORPHOLOGY EVOLUTION ECOLOGY SYSTEMATICS PHYLOGENY DEVELOPMENT
GREENSTEIN, BENJAMIN	ASTEROIDEA ECHINOIDEA TAPHONOMY FOSSIL RECENT CROWN-OF-THORNS STARFISH
GREENWOOD, AMY	REPRODUCTION ECOLOGY CONSERVATION
GROSJEAN, PHILIPPE	ECHINOCULTURE GROWTH POPULATION-DYNAMICS MODEL <i>Paracentrotus lividus</i>
GROVES, CATHY	ASTEROIDEA BIOGEOGRAPHY SYSTEMATICS
GRYGIER, MARK	PARASITOLOGY EPIZOIC-FAUNA GALLS-AND-CYSTS
GUDMUNDSSON, JON EGGERT	ECHINOIDEA ECOLOGY POPULATION
GUILLOU, MONIQUE	SEA-URCHIN ECOTOXICOLOGY ECOLOGY
GURREA, ISIDRO	ECHINOIDEA CRETACEOUS CENOZOIC WESTERN-EUROPEAN-MEDITERRANEAN-BASIN
GUTT, JULIAN	BIODIVERSITY ECOLOGY
HADEL, VALERIA FLORA	HOLOTHUROIDEA BIOLOGY ECOLOGY
HAGEN, NILS	ECHINOIDEA ECOLOGY DISEASE CULTIVATION
HALL, ROSEMARY	OPHIUROIDEA REGENERATION <i>Ophiothrix angulata Amphipholis gracillima</i> POLLUTANTS ZINC
HAMEL, JEAN-FRANCOIS	REPRODUCTION SETTLEMENT BEHAVIOR CHEMICAL-ECOLOGY
HAMMER, HUGH	NUTRITION GONAD GROWTH DEVELOPMENT ENZYMES
HAMZA HASSAN, MOHAMED	ECOLOGY
HAND, CLAUDIA	HOLOTHUROIDEA FISHERIES DISTRIBUTION
HARPER, FIONA	EVOLUTION LIFE-HISTORY HYBRIDIZATION PHYLOGENETICS
HAUDE, REIMUND	TAXONOMY PALEOECOLOGY EVOLUTION
HAVARDSSON, BJORGOLFUR	ECHINOIDEA
HEINZELLER, THOMAS	CRINOIDEA ULTRASTRUCTURE NEUROANATOMY
HENDLER, GORDON	OPHIUROIDEA TAXONOMY BEHAVIOR FUNCTIONAL-MORPHOLOGY
HENKEL, TIMOTHY	<i>Ophiothrix lineata</i> SPONGE-DWELLING HABITAT-PARTITIONING
HERDENDORF, CHARLES	ABYSSAL ASTEROIDEA BRISINGIDAE ECHINOIDEA
HERRINGSHAW, LIAM	TAXONOMY PALAEOBIOLOGY ASTEROIDEA
HESS, HANS	TAXONOMY PALEOECOLOGY CRINOIDEA ASTEROIDEA OPHIUROIDEA
HICKMAN, JR., CLEVELAND	SYSTEMATICS ECOLOGY
HIGHSMITH, RAYMOND	ECOLOGY REPRODUCTION COMMUNITY-ECOLOGY
HILL, ROBERT	HOLOTHUROIDEA COMPARATIVE-PHYSIOLOGY
HOBERG, MAX	TAXONOMY BIODIVERSITY FEEDING REPRODUCTION
HODGSON, ALAN	ASTEROIDEA MORPHOLOGY
HOFFMAN, JENNIFER	ECHINOIDEA LARVAE UV
HOLTERHOFF, PETER	CRINOIDEA FOSSIL PALEOECOLOGY SYSTEMATICS
HOOD, SARAH	TAXONOMY BIOGEOGRAPHY DEEP-WATER
HOOPER, ROBERT	ECHINOIDEA ECOLOGY AQUACULTURE CONSERVATION
HOPKINS, THOMAS	ASTEROIDEA ECHINOIDEA SYSTEMATICS
HORSTMAN, DEON	MARICULTURE ECHINOIDEA
HOSHI, MOTONORI	FERTILIZATION ACROSOME-REACTION GLYCOCONJUGATES
HOTCHKISS, FREDERICK	OPHIUROIDEA STELLEROIDEA PALEOZOIC PENTAMERISM
HOTTENROTT, SUSAN	OPHIUROIDEA TAXONOMY DEEP-SEA BIOGEOGRAPHY
HOWELL, KERRY	ASTEROIDEA ECOLOGY REPRODUCTION DISTRIBUTION POPULATION-GENETICS
HUNTER, MARGARET	ECHINOIDEA FISHERY-MANAGEMENT MONITORING ASSESSMENT
HUSEYINOGLU, FATIH	BIODIVERSITY BENTHIC-INVERTEBRATES
IRIMURA, SEIICHI	OPHIUROIDEA TAXONOMY MORPHOLOGY ECOLOGY
ISHIDA, YOSHIKI	PALEOECOLOGY PHYSIOLOGY OPHIUROIDEA
IVY, GRISILDA	SEA-CUCUMBER CULTURE TECHNOLOGY
JABLONSKI, DAVID	ECHINOIDEA CRINOIDEA FOSSIL
JACKSON, JENNIFER	IRREGULAR-ECHINOIDEA FOSSILS EVOLUTIONARY-RATE
JACOB, UTE	CIDAROIDEA
JACOBSEN, NANCY	ASTEROIDEA TAXONOMY DISTRIBUTION REPRODUCTION

JAECKLE, WILLIAM
 JAGT, JOHN
 JAMES, DANIEL
 JAMES, DAVID
 JAMIESON, GLEN
 JANIES, DANIEL
 JEFFERIES, RICHARD P.
 JEFFERY, CHARLOTTE
 JELL, PETER
 JELLETT, JOANNE
 JEYABASKARAN, R.
 JOHNSEN, SONKE
 JOHNSON, SHERI
 JUNIO-MENEZ, ANNETTE
 JUNQUEIRA, ANDREA
 KAMMER, THOMAS
 KASYANOV, VLADIMIR
 KAWAUCHI, GISELE YUKIMI
 KELLER, BRIAN
 KELLEY, L. SCOTT
 KELLY, MAEVE
 KERR, ALEXANDER
 KINJO, SONOKO
 KLIKUSHIN, VLADIMIR
 KLINGER, THOMAS
 KNOTT, K. EMILY
 KOBAYASHI, NAOMASA
 KOGO, ICHIZO
 KOGURE, YOICHI
 KRISHNARAJAH, PADMINI
 KROH, ANDREAS
 KROHLING, WERTHER
 KYTE, MICHAEL
 LACEY, KATRINA
 LAMBERT, PHILIP
 LANDEIRA FERNANDEZ, A.
 LANE, DAVID
 LANE, N. GARY
 LAWLEY, JERRY
 LAWRENCE, JOHN
 LE MENN, JEAN
 LEE, YOUN-HO
 LEFEBVRE, BERTRAND
 LELAND, AMANDA
 LEMBO, LUIZ
 LESSER, MICHAEL
 LESSIOS, HARILAOS
 LEVIN, VALERY
 LEWIS, DAVID
 LHEKNIM, VACHIRA
 LIAO, YULIN
 LINDSTROM, DAWN
 LITVINOVA, NINA
 LORDSON, JINBERT
 MACURDA, JR., D. B.
 MACZYNSKA, STEFANIA
 MAGSINO, RICHARD
 MAH, CHRISTOPHER
 MAHARAVO, JEAN
 MAIER, MARTA
 MALAY, MARIA CELIA D.
 MALDONADO, ELISA
 MALLET, JEROME
 MANIKANDAN K.P.
 LARVAE PHYSIOLOGY ECOLOGY MORPHOLOGY
 TAXONOMY PALEOECOLOGY BIOZ
 TAXONOMY BIODIVERSITY ZOOGEOGRAPHY HATCHERY CULTURE
 SEA-URCHIN DIET BEHAVIOR
 BIODIVERSITY HABITAT-MODIFICATION SURVEY
 ASTEROIDEA EVOLUTION DEVELOPMENT
 PHYLOGENY RELATIONSHIPS-OF-PHYLA
 ECHINOIDEA-PHYLOGENIES MORPHOLOGICAL & MOLECULAR ECHINOIDS-OVER-THE-K-T-BOUNDARY
 ECHINOID-LARVAL-STRATEGY
 AUSTRALIA FOSSIL PALAEOZOIC CRINOIDS ASTEROZOANS CARPOIDS RHOMBIFERA EDRIOASTEROIDS
 IMMUNITY DISEASE
 BIODIVERSITY CORAL-REEF-ASSOCIATED-ANIMALS
 PHOTORECEPTION ORIENTATION OPHIUROIDEA
 ASTEROIDEA ASTERINID PHYLOGENY
 CULTURE MANAGEMENT POPULATION-GENETICS LARVAL-ECOLOGY
 REPRODUCTION RECRUITMENT SETTLEMENT POPULATION-DYNAMICS
 CRINOIDEA PALEOZOIC TAXONOMY EVOLUTION PALEOECOLOGY
 ASTEROIDEA REPRODUCTION CELLULAR-MECHANISMS
 HOLOTHUROIDEA APODIDA REPRODUCTION DISPERSION
 ECHINOIDEA ECOLOGY
 ECHINOIDS COMATULIDS CRETACEOUS ONTOGENY CIDAROIDS
 ECHINOCULTURE PSAMMECHINUS-MILLARIS NUTRITION GROWTH
 HOLOTHUROIDEA PHYLOGENY EVOLUTION SYSTEMATICS
Echinometra LARVAL-SKELETON EVOLUTION
 TAXONOMY PALEOBIOLOGY
 ECHINOIDEA HOLOTHUROIDEA NUTRITION ECOLOGY
 ASTEROIDEA SYSTEMATICS DEVELOPMENTAL-EVOLUTION
 ECHINOIDEA MARINE-POLLUTION BIOASSAY SPAWNING-PERIODICITY
 TAXONOMY DISTRIBUTION PHYLOGENY EXISTING-CRINOIDEA
 ASTEROIDEA OPHIUROIDEA SAND-DOLLAR TAXONOMY DISTRIBUTION ECOLOGY JAPAN-SEA
 HOLOTHUROIDEA TAXONOMY FOOD-HABITS REPRODUCTIVE-BIOLOGY
 ECHINOIDEA TAXONOMY PALAEOECOLOGY BIOGEOGRAPHY CENOZOIC
 BENTHIC-ECOLOGY MARINE-ECOLOGY BIOGEOGRAPHY
 OPHIUROIDEA ASTEROIDEA TAXONOMY SYSTEMATICS ECOLOGY WORLDWIDE
 HOLOTHUROIDEA
 SYSTEMATICS HOLOTHUROIDEA TAXONOMY NATURAL-HISTORY
 SEA-CUCUMBER-SMOOTH-MUSCLE Ca²⁺-ATPase Ca²⁺-transport
 ASTEROIDEA BIODIVERSITY BIOGEOGRAPHY POPULATION-STUDIES
 CRINOIDEA PALEOZOIC
 ECHINOIDEA
 NUTRITION REPRODUCTION REGENERATION AQUACULTURE ECOLOGY
 SYSTEMATICS PALEOBIOLOGY PALEOECOLOGY PALEOBIOGEOGRAPHY BIOSTRATIGRAPHY
 EVOLUTION EMBRYOLOGY DEVELOPMENT
 PALEOZOIC STYLOPHORANS EOCRINOIDS PALEOBIOLOGY PALEOECOLOGY
 TROPIC-EFFECTS TAXONOMY GLOBAL-DISTRIBUTIONS/ABUNDANCES
 CRINOIDEA
 ECHINOIDEA
 ECHINOIDEA PHYLOGENY POPULATION-GENETICS
 SHALLOW-WATER-HOLOTHUROIDEA SYSTEMATICS BIOLOGY FEEDING FISHERIES
 PALAEOONTOLOGY ECHINOIDEA
 TAXONOMY GULF-OF-THAILAND ANDAMAN-SEA
 OPHIUROIDEA HOLOTHUROIDEA TAXONOMY MARICULTURE
 PREDATION OPHIOCOMA-ECHINATA
 OPHIUROIDEA TAXONOMY MORPHOLOGY BEHAVIOUR ECOLOGY
 HOLOTHUROIDEA
 TAXONOMY PALEOECOLOGY CRINOIDEA
 ECHINOIDEA MIOCENE PARATETHYS-BASIN MEDITERRANEAN
 POPULATION-GENETICS ASTEROIDEA ALLOZYMES PCR-RFLP DNA-SEQUENCE-DATA
 ASTEROIDEA GONIASTERIDAE FORCIPULATES ASTERIIDAE BRISINGIDA PHYLOGENETICS TAXONOMY FEEDING
 ECOLOGY MESOZOIC CENOZOIC SYSTEMATICS DEEP-SEA INDIAN-OCEAN PACIFIC-OCEAN
 TAXONOMY BIOLOGY BIODIVERSITY
 POLAR-METABOLITES BIOLOGICAL-ACTIVITY ISOLATION STRUCTURAL-ELUCIDATION
 SEA-URCHIN POPULATION-GENETICS FISHERY-MANAGEMENT
 ECOLOGY CRINOIDEA
 BIOLUMINESCENCE PHYSIOLOGY NEUROBIOLOGY FUNCTIONAL-ECOLOGY
 HOLOTHUROIDEA EMBRYOLOGY HATCHERY

MANNI, RICCARDO
MANNIFIELD, KAY
MANSO, CYNTHIA
MAPLES, CHRISTOPHER

MARAN, ALEKSANDRA
MARCUS, SARA
MARQUARDT, LUCIE
MARSH, LOISETTE
MARTIN, RICHARD

MARTINEZ, PRISCILLA
MARTINEZ, SERGIO
MARTINS DELBONI, C.
MASCARENHAS, B. J.
MASHANOV, VLADIMIR
MASON, JOANNE
MASSIN, CLAUDE
MASTROTOTARO, F.
MATA PEREZ, EUSTOLIA
MATERIA-ROWLAND, C.
MATIAS, MIGUEL
MATTOS-SEGOVIA, ELIO
MAUBON, ROGER
McBRIDE, SUSAN
McCLINTOCK, JAMES
McEUN, F. SCOTT
MCGOVERN, TAMARA
McKENZIE, J. DOUGLAS
McLELLAND, JERRY
McNAMARA, KENNETH
MEDEIROS-BERGEN, DOT
MELIKOV, OKTAY HAMZA
MENDES, CARLA L. TORRES
MERCIER, ANNIE
MESSING, CHARLES
MEYER, CHRISTIAN
MEYER, DAVID

MEZALI, KARIM
MILLER, ROBERT
MINER, BENJAMIN
MIRONOV, ALEXANDER
MITROVIC-PETROVIC, J.
MLADENOV, PHILIP
MONTAGUE, CHRISTOPHER
MOOI, RICHARD
MOONEY, ROBERT
MOORE, ABIGAIL
MORGAN, ANDREW
MORGAN, KATHERINE
MORGAN, RAPHAEL
MORRILL, JOHN
MOTOKAWA, TATSUO
MUKAI, HIROSHI
MULLER, CLARE
MUNK, ERIC
MUSA, NADIRAH
NAIDENKO, TAMARA
NAKAI, SAORI
NATARAJAN, P.
NEBELSICK, JAMES
NEILL, BRUCE
NEPOTE, ANA CLAUDIA
NESTLER, HELMUT
NEUMANN, CHRISTIAN
NICHOLS, DAVID

SYSTEMATICS MORPHOLOGICAL-FUNCTIONALITY CYRTOCRINID-crinoids
PALAEOECOLOGY TAXONOMY TAPHONOMY BIODIVERSITY-(+EXTINCTIONS)
OPHIUROIDEA ECHINOIDEA TAXONOMY CRETACEOUS
DEVONIAN CARBONIFEROUS MISSISSIPPIAN PENNSYLVANIAN PERMIAN PALEOECOLOGY
PALEOBIOGEOGRAPHY CRINOID BLASTOID MICROCRINOID
ECHINOIDEA CRETACEOUS SYSTEMATICS BIOSTRATIGRAPHY PALAEOECOLOGY TAPHONOMY
PALEOZOIC-CRINOIDS 'MICROCRINOIDS'
ASTEROIDEA ANTARCTICA TROPHIC-POSITION ENERGY-FLOW RESPIRATION REPRODUCTION
ASTEROIDEA TAXONOMY ZOOGEOGRAPHY
NONINDIGENOUS-MARINE-SPECIES INTRODUCTION-AND-TRANSLOCATION-VECTORS
MARINE-PEST-INFORMATION-SYSTEMS
HOLOTHUROIDEA REPRODUCTION LARVAL-BIOLOGY
PALEONTOLOGY TAXONOMY PALEOECOLOGY ECHINOIDEA
HOLOTHUROIDEA ONTOGENESIS LIFE-HISTORY
ASTEROIDEA ECOLOGY TAXONOMY POPULATION-DYNAMICS
HOLOTHUROIDEA REGENERATION DEVELOPMENT
ASTEROIDEA BIODIVERSITY BEHAVIOUR ECOLOGY
HOLOTHUROIDEA TAXONOMY ZOOGEOGRAPHY EVOLUTION
ECHINODERMS TAXONOMY
ECHINODERMATA ASTEROIDEA LUIDIIDAE MEXICO TAXONOMY
TAXONOMY BIODIVERSITY ECOLOGY
ECHINOIDEA
ECHINOIDEA LARVAE REPRODUCTION EMBRYOLOGY DEVELOPMENT
SYSTEMATICS ECHINOIDEA
SEA-URCHIN NUTRITION REPRODUCTION
CHEMICAL-ECOLOGY REPRODUCTION NUTRITION ECOLOGY
HOLOTHUROIDEA REPRODUCTION TAXONOMY DEVELOPMENT ECOLOGY
Ophiactis FISSION REPRODUCTION GENDER-SPECIFIC
BACTERIAL-SYMBIONTS CELL-CULTURES SURFACE-COATS
TAXONOMY BIODIVERSITY GULFOFMEXICO WESTINDIES
ECHINOIDEA PALEONTOLOGY PHYLOGENY
LIFE-HISTORY-TACTICS RECRUITMENT LARVAL-MOLECULAR-IDENTIFICATION
ECHINOIDEA EVOLUTION MORPHOLOGY HOLASTEROID SPATANGOID JURASSIC CRETACEOUS EOCENE
ECHINOMETRA-LUCUNTER GRAZING MACROALGAE FEEDING ECOLOGY
REPRODUCTION SETTLEMENT BEHAVIOUR CHEMICAL-ECOLOGY TOXICOLOGY
CRINOIDEA ECOLOGY BIOGEOGRAPHY SYSTEMATICS
MESOZOIC-ECHINODERMS PALEOBIOLOGY TAPHONOMY
CRINOIDEA PALEOZOIC MESOZOIC CENOZOIC RECENT REEFS PALEOECOLOGY FUNCTIONAL-MORPHOLOGY
TAPHONOMY
CARYOLOGY ECOLOGY LIFE-CYCLES NUTRITION HOLOTHUROIDEA
BIOGEOGRAPHY EVOLUTION FISHERY ECOLOGY
ECHINOIDEA LARVAE PLASTICITY
TAXONOMY BIOGEOGRAPHY CRINOIDEA ASTEROIDEA ECHINOIDEA HOLOTHUROIDEA
TAXONOMY PALEOECOLOGY BIOSTRATIGRAPHY PALEOBIOGEOGRAPHY
REPRODUCTION GENETICS ECOLOGY AQUACULTURE FISHERIES
ASTEROIDEA REGENERATION FISHERIES
ECHINOIDEA
COMMUNITY-ECOLOGY INTRASPECIFIC-COMPETITION
BIODIVERSITY SUSTAINABLE-EXPLOITATION
HOLOTHUROIDEA LIFE-HISTORY DEVELOPMENT REPRODUCTION
LIFE-CYCLE-EVOLUTION
OPHIUROIDEA
ECHINOIDEA DEVELOPMENT
CATCH-CONNECTIVE-TISSUE STALKED-CRINOIDS
ECHINOIDEA ECOLOGY
HOLOTHUROIDEA TAXONOMY ECOLOGY
GROWTH REPRODUCTION
HISTOLOGY HOLOTHUROIDEA
ECHINOIDEA METAMORPHOSIS POLLUTION BIOASSAY CRYOPRESERVATION
ECHINOIDEA TAXONOMY
MARICULTURE FRESH-WATER-CULTURE-OF-FIN-AND-SHELL-FISH
ECHINOIDEA ECOLOGY PALAEOONTOLOGY TAPHONOMY BIODIVERSITY
BIOGEOGRAPHY ECHINOMETRIDS GENETICS SYSTEMATICS
ECOLOGY-SANDY-BEACHES HOLOTHUROIDEA MEXICAN-PACIFIC WOMEN-IN-SCIENCE
ECHINOIDEA CRETACEOUS TAXONOMY PALEOECOLOGY
TAXONOMY PALAEOBIOLOGY CRETACEOUS ECHINOIDEA ASTEROIDEA
FUNCTIONAL-MORPHOLOGY REPRODUCTIVE-STRATEGIES

NICOSIA, UMBERTO SYSTEMATICS PALAEOECOLOGY Jurassic crinoids EVOLUTION STRATIGRAPHY non-isocrinid crinoids
 NISHIHARA, MORITAKA ECOLOGY BIODIVERSITY POPULATION BEHAVIOR
 NISHIZAKI, MICHAEL ECHINOIDEA RECRUITMENT ECOLOGY JUVENILES SHELTERING
 NITHYANANDAN, M. TAXONOMY BIODIVERSITY
 NOBRE, CARLA CATTALAN ASTEROIDEA ECOLOGY LARVAE-DEVELOPMENT REPRODUCTION
 NOGUEIRA LIMA, RENATA REPRODUCTION REPRODUCTION-CYCLE HOLOTHUROIDEA
 NOJIMA, SATOSHI SEA-STAR SEA-URCHIN LIFE-HISTORY-TACTICS PREDATION-PRESSURE ECOLOGICAL-ENERGETICS
 O'CONNOR, BRENDAN OPHIUROIDEA TAXONOMY BIOTURBATION DENSITY-REGULATORY-FACTORS
 O'HARA, TIMOTHY TAXONOMY NATURAL-HISTORY BIOGEOGRAPHY CONSERVATION
 O'LOUGHLIN, P. MARK HOLOTHUROIDEA TAXONOMY
 OHTA, SUGURU TAXONOMY DEEP-SEA ECOLOGY HOLOTHURIA ECHINODERMS
 OJEDA, F. PATRICIO ECOLOGY BIOLOGY FEEDING-BIOLOGY DISTRIBUTION
 OJI, TATSUO CRINOIDEA TAXONOMY EVOLUTION BIOGEOGRAPHY REGENERATION
 OLIVARES CARDENAS, M. HOLOTHUROIDEA TAXONOMY
 OLSZEWSKA-NEJBERT, D. CRETACEOUS-IRREGULAR-ECHINOIDS PALEOBIOGEOGRAPHY STRATIGRAPHY
 OLVER, JANE ECOLOGY RECENT-&-FOSSIL BRITISH ECHINOIDEA
 ORTIZ, EDUARDO MORTEO FISHERIES ASTEROIDEA
 OTERO, MARIA DEL MAR AQUACULTURE ECOLOGY BIODIVERSITY BEHAVIOUR
 OYEN, CRAIG FOSSIL-ECHINOIDS COMATULID-CRINOIDS BIOSTRATIGRAPHY CENOZOIC FLORIDA
 PABIAN, ROGER CRINOIDEA-EPIBIONTS PARASITES PREDATORS COMMENSALS
 PAGETT, RICHARD BRACKISH-WATER BRITTLESTAR-ECOLOGY CASPIAN SEA
 PAIK, SANG GYU BENTHIC-ECOLOGY ASTERIAS-AMURENSIS
 PALUMBI, STEVE ECHINOIDEA SPECIATION POPULATIONS-STRUCTURE MOLECULAR-EVOLUTION
 PARDO ANGEL, ROBERTO ECOLOGY POPULATION-DYNAMICS ECHINOIDEA OPHIUROIDEA
 PARMA, SARA GRACIELA PALEOBIOGEOGRAPHY ECHINOIDEA MESOZOIC-CENOZOIC
 PARSLEY, RONALD ANKYROIDS CORNUTES STYLOPHORA HOMALOOZOA CYSTOID-groups
 PAULS, SHEILA MARQUES TAXONOMY ECOLOGY MORPHOLOGY
 PAYNE, ADAM OPHIUROIDEA ECOLOGY PREDATION
 PEARCE, CHRIS URCHIN CULTURE ENHANCEMENT PREPARED-FEEDS
 PENCHASZADEH, PABLO ASTEROIDEA ECHINOIDEA HOLOTHUROIDEA NUTRITION REPRODUCTION
 PEREIRA MAJER, A. HOLOTHUROIDEA APODA REPRODUCTION BEHAVIOR
 PETR, VACLAV SYSTEMATICS TAXONOMY PALEOBIOLOGY PALEOECOLOGY BIOSTRATIGRAPHY
 PETROVA, IRINA MORPHOLOGY
 PHILIPPE, MICHEL ECHINOIDEA PALEOECOLOGY STRATIGRAPHY TAXONOMY
 PIEPENBURG, DIETER ECOLOGY OPHIUROIDEA BIODIVERSITY
 PODOLSKY, ROBERT REPRODUCTION FERTILIZATION LARVAL-BIOLOGY PHYSIOLOGY BIOCHEMISTRY
 POMORY, CHRISTOPHER REGENERATION PHYSIOLOGICAL-ECOLOGY TAXONOMY
 PORTELL, ROGER ECHINOIDEA ASTEROIDEA TAXONOMY BIODIVERSITY
 PROKOP, RUDOLF JAN EARLY-PALAEOZOIC-ECHINODERMATA BIOSTRATIGRAPHY PALEOBIOLOGY
 PUTCHAKARN, SUMAITT TAXONOMY ECOLOGY BIODIVERSITY
 QUEVEDO, RUY HOLOTHUROIDEA REPRODUCTION CULTURE
 RAJAKUMAR, C. BIOLOGY ECOLOGY
 RAM MOHAN, M. HOLOTHUROIDEA TAXONOMY REPRODUCTIVE-BIOLOGY
 RANNER, HERWIG *Asterias rubens* CLIMATE-RECORDER GLOBAL-CHANGE
 REGIS, MARIE-BERTHE BIOLOGY ECOLOGY POLLUTION ENVIRONMENT
 REGNAULT, SERGE MORPHOLOGY ONTOGENY SYSTEMATICS PALEOBIOGEOGRAPHY PALEONTOLOGICAL-PATRIMONY
 REICH, MIKE TAXONOMY MORPHOLOGY EVOLUTION FOSSIL-HOLOTHUROIDEA OPHIICISTIOIDEA
 REMPALA, ERIN ASTEROIDEA EVOLUTION SYSTEMATICS
 RINELLI, PAOLA BIOGEOGRAPHY ECOLOGY BIODIVERSITY
 RINGVOLD, HALLDIS ASTEROIDEA TAXONOMY DISTRIBUTION
 ROBERTS, SARAH MARINE-BIOLOGY ECHINODERMS
 ROBINSON, SHAWN SEA-URCHINS CULTURE ENHANCEMENT FISHERY ECOLOGY LARVICULTURE *Strongylocentrotus*
 ROCCATAGLIATA, A. ASTEROIDEA OPHIUROIDEA PHYSIOLOGICALLY-ACTIVE-STERIODS
 RODRIGUEZ, SEBASTIAN ECHINOIDEA ECOLOGY SPATIAL-DISTRIBUTION USE-OF-DRIFT-ALGAE
 ROGERS-BENNETT, L. ECHINOIDEA GROWTH
 ROSE, EDWARD FOSSIL ECHINOIDEA
 ROTHENBERGER, PAIGE REEF-ECOLOGY
 ROTMAN CLARK, HELEN ASTEROIDEA TAXONOMY ANATOMY
 ROUX, MICHEL CRINOIDEA TAXONOMY ECOLOGY BIOGEOGRAPHY
 ROWE, FRANK ECHINODERMATA SYSTEMATICS ZOOGEOGRAPHY EVOLUTION
 ROY, MICHAEL EVOLUTIONARY-GENETICS CONSERVATION-GENETICS PHYLOGEOGRAPHY MARINE-SPECIATION
 RUBILAR, TAMARA HUMAN-AIDED-MARINE-INTRODUCTIONS NEW-ZEALAND-FIORDS
 RUENGSAWANG, NISIT ASTEROIDEA ASEXUAL-REPRODUCTION BIOCHEMISTRY
 RUSSELL, MICHAEL ECOLOGY
Strongylocentrotus-FISHERIES-MANAGEMENT GROWTH MORTALITY LIFE-HISTORY RESOURCE-ALLOCATION
 LARVAL-ECOLOGY

SABA, MASAKI	ASTEROIDEA TAXONOMY
SADLER, KIRSTEN	STARFISH MEIOSIS
SAHA, APURBA KUMAR	ASTEROIDEA
SALAMON, MARIUSZ A.	CRINOIDEA TRIASSIC
SAMYN, YVES	TAXONOMY FEEDING-BIOLOGY REPRODUCTIVE-BIOLOGY HOLOTHUROIDEA ECHINOIDEA-REGULAR
SANFORD, ERIC	ECOPHYSIOLOGY ECOLOGY BIOGEOGRAPHY ASTEROIDEA
SANO, MINORU	ECHINOIDEA POPULATION-ECOLOGY
SANTILLAN, AUGUST	ASTEROIDEA GROWTH
SANTOS, JOCO FARIA	ECHINOIDEA
SASTRY, DWADASI	TAXONOMY ECOLOGY ECHINODERMATA CORAL-REEFS SYMBIONTS
SAUCEDE, THOMAS	PRIMITIVE-IRREGULAR-SEA-URCHINS
SCALLY, KEVIN	MASTECATORY-FUNCTION ECOLOGY DENTAL-MORPHOLOGY EVOLUTION
SCHEIN, JASON	ECHINOIDEA
SCHELTEMA, RUDOLF	LARVAL-DISPERSAL MODE-OF-REPRODUCTION
SCHOPPE, SABINE	OPHIUROIDEA SEA-CUCUMBER-FISHERY INTERSPECIFIC-RELATIONSHIPS
SCHUETZ, ALLEN	REPRODUCTIVE-PHYSIOLOGY MEIOSIS OOCYTE-MATURATION HORMONAL-REGULATION
SCHUHMACHER, HELMUT	TAXONOMY ECOLOGY BIOEROSION
SCHULTZ, HEINKE	BROODING-SCHIZASTERIDS TAXONOMY BIOLOGY ECOLOGY
SEETO, JOHNSON	TAXONOMY REPRODUCTION
SERAFY, D. KEITH	ECHINOIDEA TAXONOMY LIFE-HISTORY AGE/GROWTH-STUDIES ZOOGEOGRAPHY
SEVASTOPULO, GEORGE	PALEONTOLOGY PHYLOGENY FUNCTIONAL-MORPHOLOGY CRINOIDEA
SEWELL, MARY	HOLOTHUROIDEA BIOGEOGRAPHY LARVAL-ECOLOGY LARVAL-DEVELOPMENT REPRODUCTION
SHEPHERD, SCORESBY	ECHINOIDEA CULTURE
SHICK, J. MALCOLM	PHYSIOLOGY PHOTOBIOLOGY BIOCHEMISTRY DEVELOPMENT
SHIRLEY, THOMAS	CRAB-ASTEROID-INTERACTIONS
SIBUET, MYRIAM	TAXONOMY BIODIVERSITY
SINGLETARY, ROBERT	ECOLOGY TAXONOMY
SKOLD, MATTIAS	OPHIUROIDEA REGENERATION DEVELOPMENT
SLOAN, NORMAN	HOLOTHUROIDEA FISHERIES
SMILEY, SCOTT	HOLOTHUROIDEA PHYSIOLOGY DEVELOPMENT EVOLUTION
SMIRNOV, ALEXEI	TAXONOMY ZOOGEOGRAPHY EVOLUTION PHYLOGENY PALEONTOLOGY HOLOTHUROIDEA
SMIRNOV, IGOR	POLAR-OCEANS OPHIUROIDEA DATABASES
SMITH, ANDREW	ECHINOIDEA PHYLOGENY
SMITH, L. COURTNEY	URCHIN-MOLECULAR-IMMUNOLOGY-EVOLUTION-COMPLEMENT
SMITH, MICHAEL	MOLECULAR-PHYLOGENETICS LARVAL-LIFE-HISTORY-STRATEGIES
SOLANDT, JEAN-LUC	<i>Diadema</i> HERBIVORY CORAL-REEFS
SOLIS-MARIN, FRANCISCO	ECOLOGY MOLECULAR-TAXONOMY NORTH-ATLANTIC HOLOTHUROIDEA ECHINOIDEA OPHIUROIDEA
	TAXONOMY SYSTEMATICS
SOLOVJEV, ANDREY	ECHINOIDEA EVOLUTION PALEOECOLOGY
SONNENHOLZNER, JORGE	ECHINOIDEA ECOLOGY DISEASE IMMUNE-RESPONSE
SOUSA, RUI	OPHIUROIDEA ECOLOGY BIODIVERSITY
SPENCER, LARRY	POPULATION-ECOLOGY SYMBIOTIC-RELATIONSHIPS LIFE-HISTORY-STUDIES
SPIRINA, IRINA	MORPHOLOGY REGENERATION HOLOTHUROIDEA
SPIRLET, CHRISTINE	SEA-URCHIN ECHINICULTURE REPRODUCTION GONAD-GROWTH
SPONER, RENATE	EVOLUTION GENETICS BIODIVERSITY BIOGEOGRAPHY
STANCYK, STEPHEN	OPHIUROIDEA REGENERATION PREDATION POPULATION GROWTH
STARMER, JOHN	OPHIUROIDEA TAXONOMY BIOGEOGRAPHY SYMBIOSIS-(with octocorals)
STEWART, BRIAN	OPHIUROIDEA REPRODUCTION ANATOMY PHYSIOLOGY
STICKLE JR., WILLIAM	PHYSIOLOGY TOLERANCE ASTEROIDEA
STOCK, STUART	X-RAY-MICROTOMOGRAPHY X-RAY-DIFFRACTION MICROSTRUCTURE
STOCKLEY, BRUCE	PHYLOGENETICS SPATANGOIDA
STOEHR, SABINE	OPHIUROIDEA BIODIVERSITY PHYLOGENY
STORC, RICHARD	OPHIUROIDEA ASTEROIDEA TAXONOMY CRETACEOUS
STRATHMANN, RICHARD	LARVAE EVOLUTION BODY-PLANS
STUMP, RICHARD	CELL-BIOLOGY LIFE-HISTORY POPULATION-DYNAMICS AGE-DETERMINATION
SU, XIAOWEI	SEA-URCHIN-SPINE NATURAL-COMPOSITES
SUMRALL, COLIN	PHYLOGENY SYSTEMATICS PALEOECOLOGY EDRIOASTEROID
SUTER, SHERMAN	ECHINOIDEA PALEOBIOLOGY
TABLADO, ALEJANDRO	ASTEROIDEA TAXONOMY SOUTH-ATLANTIC
TAHERA, QASEEM	TAXONOMY BIODIVERSITY ECOLOGY LARVAL-DISTRIBUTION
TAKAHASHI, KEIICHI	MUSCLE-PHYSIOLOGY SPERM-MOTILITY CONNECTIVE-TISSUE
TALBOT, TIFFANY	OPHIUROIDEA REPRODUCTION DEVELOPMENT BEHAVIOR FUNCTIONAL-MORPHOLOGY
TAVARES, YARA A.	ECHINOIDEA ECOLOGY REPRODUCTION BIOCHEMISTRY ALLOCATION-OF-RESOURCES HISTOLOGY FEEDING
THANDAR, AHMED	TAXONOMY BIODIVERSITY SYSTEMATICS ZOOGEOGRAPHY REPRODUCTIVE-BIOLOGY EVOLUTION
	HOLOTHUROIDEA
THAPANAND, THANITHA	POPULATION-DYNAMICS fish and invertebrates

THIERRY, JACQUES MORPHOLOGY MORPHOMETRY SYSTEMATICS TAXONOMY PALAEOECOLOGY PALAEOENVIRONMENTAL-LINKS
 EVOLUTION BIOSTRATIGRAPHY PALAEOBIOGEOGRAPHY
 THORNDYKE, MICHAEL NEUROBIOLOGY REGENERATION DEVELOPMENT
 THORSEN, MARIANNE ECHINOIDEA GUT-MICROBIOTA
 TIAGO, CLAUDIO BIOLOGY ECHINODERMS
 TOMAS, FIONA ECHINOIDEA ECOLOGY PARACENTROTUS-LIVIDUS
 TOMINAGA, HIDEYUKI BRITTLE-STAR SEXUAL-DIMORPHINISM DEVELOPMENT SAND-DOLLARS-(as-their-host) TAXONOMY
 TOMMASI, LUIZ ROBERTO OPHIUROIDEA SYSTEMATICS ANTARCTICA PALAEOBIOGEOGRAPHY BIOGEOGRAPHY
 TRONCOSO, JUAN TAXONOMY ANTARCTIC
 TURNER, RICHARD SYSTEMATICS MORPHOLOGY REPRODUCTION PHYSIOLOGICAL-ECOLOGY
 TURON, XAVIER REPRODUCTIVE-BIOLOGY RECRUITMENT POPULATION-DYNAMICS ECOTOXICOLOGY
 TUTERA, PETER TAXONOMY BIODIVERSITY CONSERVATION
 UBAGHS, GEORGES LOWER-PALAEOZOIC-ECHINODERMS CRINOIDS CARPOIDS
 UTHICKE, SVEN HOLOTHUROIDEA POPULATION-GENETICS ASEXUAL-REPRODUCTION INTERACTIONS-WITH-ENVIRONMENT
 UY, FREDERICK ECOPHYSIOLOGY ECHINOIDEA
 v.JUTERZENKA, KAREN OPHIUROIDEA ARCTIC-ECHINODERMS-ECOLOGY FEEDING-STRATEGIES POPULATION-DYNAMICS
 VADAS, ROBERT GRAZING BEHAVIOR REPRODUCTIVE-ECOLOGY
 VADET, ALAIN ECHINOIDEA JURASSIC TAXONOMY
 VALENTINE, JOE ECHINOIDEA ECOLOGY
 VALENTINE, JOHN OPHIUROIDEA ECHINOIDEA ECOLOGY
 VAN DER HAM, RAYMOND ECHINOIDEA CAMPANIAN-MAASTRICHTIAN-DANIAN NW-EUROPE TAXONOMY
 VAN HOUT, TESSA ECOLOGY DISTRIBUTION BEHAVIOUR BIO-EROSION
 VANDENSPIEGEL, DIDIER DEFENSIVE-MECHANISMS MORPHOLOGY SYMBIOSIS
 VANDERKLIFT, MAT ECOLOGY ECHINOIDEA
 VEATTO, RICARDO TAXONOMY ECOLOGY PHYSIOLOGY
 VEATCH, STEVEN ECHINOIDEA FOSSILS
 VEGA, JUAN TORRES OPHIUROIDEA ECHINOIDEA SYSTEMATICS
 VELARDE, RONALD TAXONOMY DISTRIBUTIONAL-ECOLOGY SYMBIOTIC-RELATIONSHIPS
 VENTURA, CARLOS REPRODUCTION ASTEROIDEA
 VERLING, EMMA ECHINOIDEA ASTEROIDEA BEHAVIOUR ECOLOGY NICHE-PLASTICITY
 VIADA, STEPHEN TAXONOMY BIODIVERSITY BIOGEOGRAPHY
 VICKERY, MINAKO ASTEROIDEA MOLECULAR-PHYLOGENY
 VIKTOROVSKAYA, GALINA REPRODUCTION INVERTEBRATES BIOTIC-ABIOTIC-CONDITIONS
 VILLALOBOS, FRANCISCO TAXONOMY BIOGEOGRAPHY ECOLOGY
 VILLIER, LOIC ASTEROIDEA SPATANGOIDA TAXONOMY PHYLOGENY
 VISTISEN, BODIL OPHIUROIDEA
 VOLBEHR, UTE ECOLOGY
 von BRAND, ELISABETH HOLOTHUROIDEA CYTOGENETICS POPULATION-GENETICS
 WALKER, CHARLES SEASTAR SEA-URCHIN GAMETOGENESIS ULTRASTRUCTURE SIGNAL-TRANSDUCTION-PATHWAYS VITELLOGENIN
 MAP-KINASE STEROIDS c-myc p53 c-ras LAND-BASED-AQUACULTURE SBIR
 SEA-URCHIN LARVAL-CULTURE LYTECHINUS-VARIEGATUS
 WALLACE, BRENDA ASTEROIDEA EVOLUTION MOLECULAR-BIOLOGY
 WATERS, JONATHAN GROWTH REPRODUCTION NUTRITION PHYSIOLOGY HORMONES
 WATTS, STEPHEN CRINOIDEA PALEOZOIC TAXONOMY PALEOBIOGEOGRAPHY
 WEBSTER, GARY CRINOIDEA MORPHOLOGY NERVOUS-SYSTEM CONNECTIVE-TISSUE
 WELSCH, ULRICH CRINOIDEA LARVAL-BIOLOGY TAXONOMY SENSORY-BIOLOGY
 WHITE, CHRIS CRINOIDEA TAXONOMY PALAEOBIOGEOGRAPHY PHYLOGENY PALAEOZOIC
 WIDDISON, ROSANNE REPRODUCTIVE-BIOLOGY POPULATION-GENETICS ECOLOGY HOLOTHUROIDEA
 WIGHAM, BEN OPHIUROIDEA ECHINOIDEA FUNCTIONAL-MORPHOLOGY
 WILKIE, IAIN POPULATION-GENETICS MOLECULAR-PHYLOGENY EXPRESSED-GENES
 WILLCOX, MARK CHEMICAL-ECOLOGY LARVAL-BIOLOGY HERBIVORY LIFE-HISTORY
 WILLIAMSON, JANE ZOOGEOGRAPHY AZORES
 WIRTZ, PETER TAXONOMY SYSTEMATICS PHYLOGENY ECHINOIDEA CORAL-REEF DEEP-SEA
 WOERHEIDE, GERT SPAWNING-BEHAVIOUR CORAL-REEF-OPHIUROIDS
 WOODLEY, JEREMY EVOLUTION DEVELOPMENT PHYLOGENETICS
 WRAY, GREGORY LARVAL-DEVELOPMENT BIOGEOGRAPHY
 YAMAGUCHI, MASASHI METAMORPHOSIS ECHINOIDEA DEVELOPMENT
 YANAGISAWA, TOMIO FISHERIES-MANAGEMENT
 YANG, MEI-SUN MARINE-ECOLOGY MARINE-BIOLOGY
 YEEMIN, THAMASAK HOLOTHURIA
 YEVDOKIMOV, ALEXANDR PHYLOGENY MORPHOGENESIS EMBRYOGENESIS
 YOKOTA, YUKIO COLLAGEN EXTRACELLULAR-MATRIX ELM
 YOSHIZATO, KATSUTOSHI PIGMENT CAROTENOIDS ECHINODERMATA FEEDING
 ZADOROZHNY, PAVEL POPULATION-GENETICS LARVAL-DEVELOPMENT SOFT-SEDIMENT-ECOLOGY DEEP-SEA-INVERTEBRATES
 ZARDUS, JOHN TAXONOMY BIODIVERSITY ECOLOGY DISTRIBUTION
 ZAVODNIK, DUSAN TAXONOMY ASTEROIDEA
 ZEIDLER, WOLFGANG TAXONOMY TAPHONOMY PALEOECOLOGY
 ZITT, JIRI

☆☆☆ CURRENT RESEARCH ☆☆☆

ADAMS, SEREAN - Cryopreservation of gametes and larvae of the sea urchin *Evechinus chloroticus*.

ADDISON, JASON - Population genetics of *Strongylocentrotus drobachiensis*.

AGATSUMA, YUKIO - Population ecology of the sea urchins in southern Japan.

ALBI, YVONNE - Working on Cretaceous echinoids from the Santa Ana Mountains, southern California which have not been described before.

ALI, MOHAMED SAID M. - Study of some Jurassic and Cretaceous echinoids of Sinai, Egypt.

ALLEN, JOHN - Deep-sea benthos of the Atlantic.

ALLISON, WILLIAM - I am a coral reef ecologist, and so am generally interested in Echinoderms. I have however, a particular interest in all facets of the life and times of *Culcita spp.* I am looking into the taxonomy and ecology of the species in Maldives, with special interest in its feeding ecology; completing research on reef survey methods and the status of Maldivian reefs.

ALVA, VICTOR - Trophic ecology of benthonic suspension organisms.

ALVAREZ, LEONARDO RAMON - Review of the Echinoderms of the Atlantic coast of Colombia.

ANDACHT, TRACY - Studying the mechanism of dorsoventral polarity disruption and inhibition of fertilization envelope elevation by nickel chloride in the sea urchin embryo, *Lytechinus variegatus*.

ANDERSON, EDWIN - Hierarchic cyclic stratigraphy of the Lower Cretaceous' Purbeckian' facies in Southern Spain-Dorset-French Jura.

ANDERSON, OWEN - Commercial fisheries research and marine ecology; population biology of commercial species of sea urchins in New Zealand, and the collection and identification of shallow water and deep-sea echinoderms.

ANDERSON, ROLAND - An escape action of the asteroid *Poraniopsis inflata* in response to other sea stars.

ARAKAKI, YUJI - Taxonomy of the sea urchin, *Echinometra mathaei* and *E. oblonga*.

ARCHER, JEFFREY - Culture of echinoderms - holothurians and echinoids. Culture of reef fish and invertebrates for the aquarium trade.

ARONSON, RICHARD - Patterns of predation on echinoderms in time and space from the tropics to Antarctica.

ASHA, PAYIKAT - Breeding, seed production and sea-ranching of sea cucumber *Holothuria scabra*.

- AUSICH, WILLIAM - Early radiation and phylogeny of crinoids; Crinoid classification; Crinoid taphonomy; Lower Mississippian crinoid macroevolution
- BALHOFF, JAMES - Molecular evolution of gene regulation in Strongylocentrotid sea urchins.
- BALSER, ELIZABETH - Mechanisms of asexual reproduction in echinoderm larvae.
- BANGI, HELEN GRACE - Culture and management of the sea urchin *Tripneustes gratilla*; pilot testing of sea urchin grow-out culture in Bolinao, Pangasinan, Philippines.
- BARBOSA LEDESMA, ISRAEL FABRICIO - Taxonomic study of Mexican sea urchin, particularly Family Cidaridae species of *Hesperocidaris*.
- BARICCHI, ELISA - Studying locomotion in *Antedon mediterranea*.
- BARTSCH, ILSE - Epi- and endozoa of ophiuroids.
- BASCH, LARRY - Ecological consequences of sea otter recolonization on nearshore benthic communities and resources in Glacier Bay, Alaska.
- BAUER, JOHN - A morbid laboratory *Diadema antillarum* was recently discovered with flagellated protozoans in the coelomic fluid (along with phagocytic coelomocytes). Studies are now being conducted to culture the flagellates and to trace the route(s) of the infection which led to the mortality.
- BAUMILLER, TOMASZ - Ecology and functional morphology of recent isocrinids; taphonomy of arms and stalks of articulates and advanced cladids vs. other Paleozoic taxa; Diversity of Permian and Triassic crinoids and effects of the P/T extinction; Patterns of turnover and extinction of Paleozoic crinoids; ecology of *Seirocrinus*; Borings in Paleozoic pelmatozoans.
- BAZHIN, ALEXANDER - Monitoring the condition of sea urchin populations (*Strongylocentrotus droebachiensis*, *S. polyacanthus*) along the Kamchatka peninsula shore.
- BEAVER, HAROLD - Fossil eggs in blastoids.
- BECKER, JOHANN - Marine invertebrates of Brazilian oceanic islands, including especially echinoderms.
- BEGBIE, KIRSTEN - Studies on the hyponeural nervous system of the brittlestar, *Ophiura ophiura*.
- BELL, BRUCE - Edrioasteroids
- BELL, MIKE - Trace fossils of ophiuroids and asteroids from Lower Cretaceous of Chile, South America. Evidence for Cretaceous echinoderm aggregation.
- BENAVIDES, MILENA - Epifauna of the continental shelf of the Caribbean and Pacific coasts of Colombia (300 to 500m).
- BENTLEY, ANDREW - Biology of the sand dollar, *Echinodiscus bisperforatus* along the southeastern coast of

South Africa, encompassing growth, reproduction, genetics, larval biology etc.

BERENTS, PENELOPE - Collection manager of Echinoderm collections.

BERGEN, MARY - The Southern Bight Pilot Project - a survey of soft bottom benthic communities between 10 & 200 m between Point Conception, California and the Mexican border.

BERTRAM, DOUGLAS - Evolution and ecology of modes of development in echinoids.

BIERMANN, CHRISTIANE - Population genetic structure in the circumantarctic sea urchin genus *Sterechinus*; Reproductive isolation and population genetics in the Strongylocentrotidae (Echinoida); amaro-dont phylogeny.

BILLETT, DAVID - Environmental impact on the deep sea; Taxonomy of the genus *Mesothuria* (Holothuroidea).

BIN ABDUL ADZIS, KEE ALFIAN - Biology of *Diadema setosum* at Tioman Island, Malaysia.

BIRENHEIDE, RUEDIGER - Aspects of aquaculture of sea urchins and sea cucumbers.

BIRKELAND, CHARLES - Coral reef management.

BIRYUKOVA, INGA - Chemoreception; chemosensory systems and its morphogenesis in the marine invertebrates.

BITTER, RICARDO - Characterizations and observations of the community of marine macroinvertebrates associated with *Thalassia* at the Morrocoy National Park. (Responsible Investigator) (Initiated in 2000).

BLACK, ROBERT - Recruitment and recovery from disturbances by *Echinometra mathaei* of Rottne-st Island, Western Australia (with Dr. Jane Prince).

BLAKE, DANIEL - The Triassic asteroid *Trichasteropsis* (with H. Hagdorn); The Carboniferous asteroid *Compsaster*; Early stelleroids from Utah (with T. Guensburg, J. Sprinkle, C. Sumrall).

BOCKELIE, JOHAN - Rhombiferan cystoids, Scandanavia.

BOCZAROWSKI, ANDRZEJ - Devonian Nonpelmatozoan Echinoderms (Ophiuroidea, Cyclocystoidea, Ophiocystioidea, Echinoidea, Holothuroidea) Mesozoic Nonpelmatozoan Echinoderms (Asteroidea, Ophiuroidea, Echinoidea, Holothuroidea) Triassic articulated ophiuroids from Poland.

BONASORO, FRANCESCO - regeneration of crinoids.

BORGES, MICHELA - Systematics and ecology of ophiuroids from southeastern Brazil.

BORRERO, GIOMAR - Taxonomy and distribution of echinoderms on the continental shelf from 300- 500 meters depth between Punta Gloria and Cape Tiburon (Caribbean coast of Colombia).

BORZONE, CARLOS - Matinhos sandy beach replenishment and its impact on the benthic macrofaunal

nearshore community; echinoderms of Parana's coastal waters, Brazil.

BOSCH, ISIDRO - UV effects on embryonic development of Antarctic and tropical echinoderms; Spawning periodicity of zebra mussels in New York's Finger Lakes.

BOUDOURESQUE, CHARLES - effect of the invasive introduced alga *Caulerpa taxifolia* on *Paracentrotus lividus*: population dynamics and diet; long term changes of *Paracentrotus lividus* (sea urchin) populations in a protected area and a non-protected area.

BOURGOIN, ALLAIN - studying the possibility of commercializing the green sea urchin *Strongylocentrotus drobachiensis* on the northeastern coast of New Brunswick.

BREGMAN, YURIY - Size-age structure & body growth studies of commercial sea urchins *Strongylocentrotus intermedius* and *S. nudus* at Japan Sea and Kuril Islands Coasts.

BRETON, GERARD - Asteroids and crinoids - Systematics, evolution - Cretaceous.

BREY, THOMAS - Antarctic Echinoids: diet, growth. Antarctic Ophiuroids: growth. Antarctic Asteroids: diet, population dynamics.

BROGGER, MARTIN - biodiversity of the South Atlantic Ocean invertebrates in the Buenos Aires province area; trophic ecology of primitive asteroids (*Astropecten spp.* and *Luidia spp.*)

BROWER, JAMES - Taxonomy, functional morphology, paleoecology, ontogeny and phylogeny of Ordovician crinoids and blastozoans from North America.

BUITRON-SANCHEZ, BLANCA - Cenozoic echinoderms (Stelleroidea and Echinoidea) from Baja California, Mexico.

BUNDRICK, CARLA - Defining range of amphiuroid brooding brittlestar from Monterey Bay and studying its development.

BURCH, BEATRICE - Working on foraminifera in gut of spatangoid echinoids of Hawaii (hopefully next spring with Rich Mooi).

BURNS, CASEY - Paleontology, paleoecology and taphonomy of the Tertiary echinoderms of the Pacific Northwest. A possible crinoid - cold seep association.

BUSSARAWIT, SOMCHAI - Taxonomic study of echinoderms from the Andaman Sea, west coast of Thailand.

BUSTOS ROJAS, HECTOR EDUARDO - Sea urchin culture, sea urchin farming improvement using artificial feed.

BYRNE, MARIA - Life history evolution, echinoderm reproduction and development, ophiuroid functional morphology, echinoderm fisheries.

CAMERON, R. ANDREW - A promoter trap strategy for finding embryonic gene regulatory regions in the sea urchin genome; The spatial expression of known patterning genes in sea urchin larval development; A micro-satellite analysis of homozygosity in an inbred line of sea urchins.

CAMPAGNA, SOPHIE - Stock assessment of the sea cucumber *Parastichopus californicus* in British Columbia. Field studies to test harvest rates and estimate biomass.

CAMPBELL, ALAN - Fisheries stock assessment, ecology of red sea urchins in British Columbia, Canada.

CAMPBELL, ANDREW - Coral reef/ echinoid relations; Taxonomy, systematics and ecology of diadematid echinoids; Distance chemoreception in echinoids and asteroids; Bioerosion by echinoids; Sea turtles.

CAMPBELL, DAVID - feeding behavior of *Asterias*.

CAMPOS-CREASEY, LUCIA - Taxonomy of holothurians from the northeast coast of Brazil.

CANDIA-CARNEVAL, M. DANIELA - Crinoid arm regeneration; Structure, physiology and biomechanics of complex musculo-skeletal systems (echinoid lantern, ophiuroid masticatory apparatus).

CANNON, LESTER - Senior Curator of Worms at Queensland Museum. Curatorial responsibility for Echinoderms.

CAREY JR, ANDREW - Ecology of mega-epifauna of Mendocino Ridge and papers on Arctic and deep-sea benthos.

CARROLL, DAVID - 1) Fertilization - signal transduction pathway leading to the initiation of calcium release. 2) Cloning and characterization of phospholipase C isoforms in eggs and early embryos of the starfish.

CASTRO, JOAO - Human predation on SW Portugal rocky shores: activities and impacts; Ecology of SW Portugal rocky shores: macrobenthic populations and communities.

CHANG, YA-QING - Sea urchin seed production and mariculture. Diets of sea urchin. Genetic breeding of sea urchin and sea cucumber. Sea cucumber culture.

CHAO, SHYH-MIN - Population dynamics of the shallow-water holothurians of Taiwan; Systematics of the echinoderms from Taiwan.

CHAVARRO, SONIA BEJARANO - Reef ophiuroid ecology, habitat preferences, species occupying sponges.

CHEN, CHANG-PO - Ontogenesis of skeletal plate patterns, gonad, and gonapores in the progenesisive *Sinaechinocyamus mai*.

CHENUIL, ANNE - Consequences of developmental mode on the planctotrophic larva in spatangoids: from population biology to phylogenesis.

CHIA, FU-SHIANG - Retired - writing articles on environmental issues, particularly on marine environment.

CHICCA, ANGIE - Volunteer collector for Birch Aquarium at Scripps Institution of Oceanography.

CHRISTENSEN, ANA BEARDSLEY - Comparison of the respiratory physiology and hemoglobins of *Ophiactis rubropoda* and *Ophiactis simplex* (Echinodermata, Ophiuroidea); hypoxia tolerance in *Hemipholis elongata*.

CHUNHABUNDIT, SURAPHOL - Benthic assemblages; Coral reef restoration by the combination techniques for specific purposes.

CLARK, ROGER - Asteroidea of the Aleutian Islands, Alaska (especially genera: *Hippasteria*, *Solaster* and *Pteraster*); Echinoderms of Alaska; Deepsea echinoderms of the North American Pacific Coast (200-5000m).

CLEMENTS, LEE ANN - Effects of flow rate on skeletal regeneration in the burrowing brittlestar *Ophiophragmus filigraneus*; Gene expression during arm regeneration in two infaunal brittlestars: *Microphiopholis gracillima* and *Ophiophragmus filigraneus*; larval toxicology - the effects of sublethal Zn exposure on larvae of the sea urchin *Lytechinus variegatus*.

CLOUSE, RONALD - taxonomy and behavior of *Bohadschia marmorata* and *B. bivittata* (Holothuroidea) from Micronesia.

CONAND, CHANTAL - Holothurian fisheries (Indian Ocean, Madagascar); Asexual reproduction in sea cucumbers; Population biology of the sea urchin *Colobocentrotus atratus*; biodiversity of reef echinoderms (La Reunion).

COSTELLO, MARK - Developing a European Register of Marine Species (details at web site erms.biol.soton.ac.uk).

CRUMP, ROBIN - Asteroid development and ecology.

CUENCA, CATHERINE - Sea urchins of the littoral Atlantic.

CUNHA DE JESUS, DORA MARIA - Seaweed harvest impact in echinoderm populations of SW coast of Portugal.

CUNNINGHAM, ADELE - Reproductive cycle of *Lytechinus variegatus*.

DAFNI, JACOB - Echinoid growth.

DALBY, JR., JAMES - Impact of aquaculture on benthic fauna, including echinoderms.

DARTNALL, ALAN - Fauna of port surveys in Australia.

DAUTOV, SALIM - Ultrastructure of the larval development of ophiuroids. Factors influencing on the distribution of the echinoderm larvae.

DAVIS, JENNIFER - For an Honours degree at the University of Newcastle, I am describing the invertebrate fauna that are associated with the sea urchin *Centrostephanus rodgersii* in various habitats in NSW, Australia. I am seeking to determine the types of association (if any) and whether the sea urchin provides important refuges

for these associated fauna. I am also interested in the implications of an expanding sea urchin fishery in NSW.

DAVOULT, DOMINIQUE - Ecology and functioning (carbon and nitrogen fluxes at the water-sediment interface) in coastal benthic communities with special reference to a dominant species, the ophiuroid *Ophiothrix fragilis* (Abildgaard); interactions between physics (hydrodynamism) and biology (suspension-feeding behaviour) for metabolism and recruitment.

DE RIDDER, CHANTAL - Symbioses in echinoids; food and feeding mechanisms in echinoids; taxonomy and biogeography of Antarctic echinoids.

DE WIT, WALTER - Fossil echinoderms in fluvial and ice-age deposits of Holland.

DEAN, JULIETTE - Ordovician divergence of asteroids and ophiuroids.

DEARBORN, JOHN - Identification manual for NW Atlantic ophiuroids; Gulf of Maine ophiuroid ecology; crinoids and ophiuroids of the Antarctic; functional morphology of ophiuroid podia.

DEHEYN, DIMITRI - Use of echinoderm bioluminescence in ecotoxicology.

DETWILER, PAUL - Population dynamics of echinoids, phenotypic plasticity and life history variation among ecotypes, echinoid/coral interactions, and microbial flora associated with echinoids.

DEVIN, MICHAEL - Developing commercial sea urchin culture techniques (Aquaculture).

DEWAELE, YANNICK - Nervous control of the luminescence on three luminous brittlestars. This year, I will try to patch-clamp on ophiuroid luminous cells.

DIEHL, WALTER - Effects of environmental stress on multilocus heterozygosity-growth relationships in invertebrates.

DOBSON, WILLIAM - Population biology of *Ophiura sarsi* on continental slope off North Carolina; Use of skeletal growth bands in ophiuroid ossicles as biological markers for sublethal predation and population ecology experiments.

DOLMATOV, IGOR - Regeneration mechanisms and their changes during individual development of echinoderms.

DOMINGUEZ, PATRICIO - Axial tomography and computerized 3D reconstruction of carapoids. This research is mainly focused on tunicate mitrates such as *Anatifopsis*, *Balanocystites*, *Jaekelocarpus*, *Peltocystis*. I am also still working on physics of the fivefold pattern and Cambrian and Ordovician fossils from Spain.

DONOVAN, STEPHEN - Caribbean fossil echinoderms:- Lower Miocene echinoderms of Jamaica - paper in preparation (with R.W. Portell); a Miocene astropectinid starfish from the Middle Miocene of Carriacou, the Grenadines - paper in preparation (with R.W. Portell, R.K. Pickerill & W. Lindsay); fieldwork for 2001 planned for Jamaica (May/June) and Carriacou (October). British Ordovician crinoids:- new camerate crinoids from the Ordovician of Britain (paper in preparation with N. Gilmour); unusual attachment structures of possible pelmatozoan origin (paper in preparation with J.C.W. Cope).

- DORNBOS, STEPHEN - Paleoecology of helicoplacoids and other Cambrian suspension- feeding echinoderms (for Masters Thesis).
- DRUMM, DARRIN - Researching traditional holothurian fishery in the Cook Islands.
- DRUMMOND, ANNE - Intra and interspecific agnostic behaviour in echinoids; wave action and consequences for *E. mathaei*, *S. variolaris*, *D. savignyi*.
- DUPONT, SAMUEL - Bioluminescence in *Amphipholis squamata* (Echinodermata: Ophiuroidea): a suitable model for studying microevolution (for PhD thesis).
- EBERT, THOMAS - 1) Finishing work on growth and mortality of red and purple sea urchins (*Strongylocentrotus franciscanus* and *S. purpuratus*) along the west coast of North America. 2) The life- history consequences of the evolutionary timing of different modes of reproduction in ophiuroids.
- EBLE, GUNTHER - Evolutionary dynamics in disasteroids, holasteroids and spatangoids; post- metamorphic spatangoid development; phylogeny of disasteroids, early holasteroids and early spatangoids.
- ELISEIKINA, MARINA - Functions of echinoderms lectins.
- ELLERS, OLAF - Growth of sand dollar teeth; catch collagen.
- EMLET, RICHARD - Functional morphology of echinoderm larval evolution of echinoid life histories and development.
- ENTRAMBASAGUAS, LAURA DE - Biology, ecology and biogeography of the Cape Verde Island's echinoderms (including taxonomy).
- ESCRIBANO, MARGARITA - Working on early echinoderms, especially Ordovician *Diploporita* from Spain.
- ESTREMADURA, D.M. - Recruitment and settlement of holothurian larvae.
- ETNIER, SHELLY - I am interested in the biomechanics of multi-jointed biological beams. Right now, I am investigating flexibility in dolphin backbones, particularly with respect to developmental changes in the biomechanics of this structure.
- ETTENSohn, FRANK - Middle Ordovician edrioasteroid firmground; Paleozoic stemless crinoids; Taxonomy, ecology, and functional morphology of the pelagic crinoid *Saccocoma*.
- EVDOKIMOV, VLADIMIR - Influence of ecological conditions on sea urchins ontogenesis in coastal communities.
- FARMANFARMAIAN, A. VERDI - Growth hormone and nitrogen retention.
- FAUVILLE, GERALDINE - The aim of my research is to determine the behaviour of *Amphipholis squamata* in the case of predation; also, to show the circadian rhythm of bioluminescence in *Amphipholis squamata*.

FAY, ROBERT - Ovachita Belt bibliography.

FEDER, HOWARD - The deep benthic environment in Port Valdez, Prince William Sound, Alaska; the feeding biology of the sea star *Pycnopodia helianthoides* in Prince William Sound, Alaska; the deep benthos in Prince William sound 16 months after the Exxon Valdez oil spill; the macrofauna (infauna and epifauna-- which includes large numbers of sea-star species) in the southeastern Chukchi Sea.

FERAL, JEAN-PIERRE - Structure of habitat and dispersal strategies; Effects of developmental modes on spatial and genetic structuring and on evolutionary processes (mainly in echinoids - annelids and molluscs also used).

FERGUSON, JOHN - Madreporite functions and water volume relationships in echinoderms - currently on echinoids and holothuroids.

FERNANDEZ, CATHERINE - Reproduction and population dynamic in lagoonal environment.

FERRAZ, ROGERIO - Scientific support to management of the small invertebrate resources of the Azores (RIVA).

FERRIER, DREW - Ophiuroid ecology (distribution, feeding and behavior).

FLAMMANG, PATRICK - Adhesion in echinoderms: An integrated study - biomechanical, morphological, molecular - of tube foot temporary adhesion, Cuvierian tubule adhesion, and larval fixation.

FOLLOSCO, MINDA - Artificial culture of economically important sea cucumber.

FONTANELLA, FRANK - A comparison of ossicle arrangement and morphology in *Echinaster sentus*, *E. spinulosus*, *E. paucispinus* from the western Atlantic and Gulf of Mexico and a yet undescribed species from the shallow waters from the Gulf of Mexico.

FOSTER, MERRILL - Ordovician echinoderms from western Virginia; Atlantic Ocean brachiopods; Antarctic and subAntarctic brachiopods; paleobiology of Pennsylvanian invertebrates in Illinois.

FOX, DAVID - Analysis of articulation in the arms of *Ophiocoma echinata* and *Ophiocoma wendti*.

FRANCOUR, PATRICE - Impact of introduced green alga *Caulerpa taxifolia* on *Paracentrotus lividus* recruitment.

FREEMAN, STEVEN - Relationships between macro-epibenthic faunas and the seabed. Mapping benthic distributions using acoustic ground discrimination systems and GIS. Patterns in the geographical distribution of Echinoderms and their association with habitat complexity.

FRONTANA URIBE, SARITA CLAUDIA - Taxonomic and distributional study of invertebrates from Clipperton Island, including echinoderms.

FRYE, BRIAN - Morphometrics project focussing on the sand dollars *Encope borealis* and *Encope californica*.

FUJITA, TOSHIHIKO - Biology of *Coscinasterias acutispina*; Ecology of Recent and fossil *Ophiura sarsii*; Ophiuroid's vertebrae (morphology, age determination); Taxonomy of ophiuroids and asteroids in Japanese and tropical Pacific waters; Biology of *Diadema* in coral reef area; Investigation and re-examination of Ludwig Doderlein's collection from Japan.

FUKUYAMA, ALLAN - Looking at recovery of intertidal invertebrates in Prince William Sound, Alaska following the 1989 Exxon Valdez oil spill and am particularly interested in molluscan and echinoderm assemblages and the contrast in recovery patterns between areas that were treated with hot-water, high pressure treatment with areas that were oiled and untreated.

GAGE, JOHN - Deep-sea biology: shelf-edge benthic fluxes, and sediment community dynamics; Deep-sea brittle star growth, spatial distribution and demographic modelling.

GAGNON, JEAN-MARC -Bioturbation by and foraging behaviour of deepwater echinoderms: Observations in mesocosms.

GALLEMI, JAUME - Cretaceous echinoids (Tethyan - worldwide); systematics, biostratigraphy and palaeoecology.

GALLEY, ELIZABETH - Reproductive responses of bathyal Antarctic echinoderms to the seasonal flux of surface derived phytodetritus.

GANDOLFI, SILVIA MARIA - Benthic community structure and feeding behavior of asteroids for a PhD program at the University of Sao Paulo, Brazil.

GARRISON, ROBERT - Designing and building a *Paracentrotus lividus* aquaculture research facility in Sardinia, Italy for a behavior, aquaculture and fishery enhancement program.

GEBRUK, ANDREY - Deep-sea holothurians (order Elasipodida and in part, Fam. Synallactidae).

GENTIL, FRANCK - Population dynamics of ophiuroid species in soft-bottom community of the English Channel.

GEORGE, SOPHIE - Maternal effects on larval growth and development of echinoderms; Morphological and behavioral responses of echinoderm larvae to salinity gradients.

GIBBS, BARBARA - Working on benthic sampling projects in the Florida Keys, Dry Tortugas, the northern Gulf of Mexico, and the Atlantic and Pacific coasts.

GIBSON, MICHAEL - Epibiont paleoecology of middle Paleozoic fossils; Cretaceous paleoecology; Taphonomy of Devonian fossils from Tennessee.

GIL CID, MARIA DOLORES - Cambrian and Ordovician echinoderms and trilobites from Spain; Palaeological aspects, morphology and function.

GINANOVA, TALIA - Muscle regeneration in holothurians.

GIRASPY, D.A. BENI - Investigating the cultural aspects of the sea cucumber *Holothuria scabra* and sea urchin.

GIUDICE, GIOVANNI - Regulation of heat shock protein (hsp) synthesis in sea urchin embryos; Apoptosis in sea urchin development; regulation of ribosomal RNA synthesis in sea urchin (*Paracentrotus lividus*) development.

GIULIANO, LAURA - Studying sea urchin interspecific relationships. Particularly, I am interested in symbiotic and/or pathogenic bacteria colonizing the sea urchin (with special emphasis on *Paracentrotus lividus*, means species in the Mediterranean Sea), and any other kind of direct-indirect relations between bacteria and sea urchins (food during larval period, etc.).

GLENN, KRITON - 1. Holocene sedimentation in the Penguin Deep NW Shelf Australia. 2. Plans of management, performance indicators and the scientific programs for Marine Protected Areas (Australia).

GLUCHOWSKI, EDWARD - Fammenian crinoids of Poland. Muschelkalk crinoids in the Middle European Basin.

GOGGIN, LOUISE - Biological control of the northern Pacific seastar; *Asterias amurensis* in Australian waters.

GOLDBERG, ARTHUR - Investigating antiarthritic properties of echinoderms.

GONGADZE, GURAM - Late Cretaceous and Paleogene echinoids of the Caucasus (classification, paleobiogeography, stratigraphy).

GONZALEZ, DUNIA NATALIA - Studying echinoderms collected during the expedition CIOH-INVEMAR-SMITHSONIAN 1995.

GONZALEZ PELAEZ, SERGIO SCARRY - Population biology of *Tripneustes depressus* (Agassiz) in the southern Gulf of California, Mexico (dissertation, in progress).

GOODING, RICHARD - Animals associated with Caribbean diadematids; Animals associated with diadematid echinoids, worldwide.

GORCHAKOV, IGOR - Studying *Asterias rubens* and other sea stars intraspecific relationships in the subpopulation of Northern Atlantic on different integrative levels. Specie boundaries and population structure.

GRABOWSKY-KAALIA, GAIL - Seabird by catch mitigation study for the Western Pacific Regional Fisheries Management Council; Native Hawaiian plant seed germination studies.

GREENSTEIN, BENJAMIN - Taphonomy of crown-of-thorns starfish; comparative taphonomy of caribbean reefs; Mode of formation of Pliocene shell beds.

GREENWOOD, AMY - Species list of invertebrates in Irish waters between 200-2000 m depth.

GROSJEAN, PHILIPPE - Land-based close cycle cultivation of *Paracentrotus lividus*. Size distribution and somatic growth of *P. lividus*, and its model.

GROVES, CATHY - *Heliaster* biogeography and systematics.

GUENSBURG, THOMAS - Edrioasteroids, early crinoids, paleoecology of echinoderms.

GUILLOU, MONIQUE - REPRODUCTION/RECRUITMENT: responses of sea-urchin population to environmental changes; BIODIVERSITY: seaweed-urchin interaction.

GURREA, ISIDRO - Echinoids from the Cretaceous and Cenozoic age, Mediterranean region (specifically Western Europe).

GUTT, JULIAN - Disturbance of polar benthic communities.

HADEL, VALERIA FLORA - Biology and ecology of echinoderms.

HAGEN, NILS - Sea urchin outbreak dynamics: ecological interactions in a macroparasite/sea urchin/kelp forest system. Echiniculture/closed cycle cultivation of sea urchins: Broodstock management, photoperiodic control of gametogenesis, growth, feeding, design of cultivation equipment.

HALL, ROSEMARY - Zinc is released into the environment by mining and industrial processes in concentrations that often exceed background levels by several orders of magnitude. When released into marine ecosystems, it binds to sediment and organic particles, and is accumulated by organisms from many phyla. Zinc is also a key element in the nervous system of many organisms, yet excess concentrations can cause severe damage or even death. Given the role of the nervous system in guiding regeneration in echinoderms, high concentrations of zinc in seawater may have negative sublethal effects evident in regenerating tissue.

I am testing the effects of zinc on ophiuroid regeneration in the brittlestars *Ophiothrix angulata* and *Amphipholis gracillima* by inducing autotomy and exposing brittlestars to varying concentrations of zinc. Effects on protein synthesis will be tested immunocytochemically by labeling regions of cell proliferation with bromodeoxyuridine. I will evaluate effects at the tissue level by measuring rate of regeneration, nerve extension, and tissue formation in arms of exposed animals. For further information, please visit <http://RosemaryHall.homestead.com/REHCurriculumVitae.html>

HAMEL, JEAN-FRANCOIS - I am currently working on the ecology of juveniles and adults of the tropical sea cucumber *Holothuria scabra* in the Solomon Islands, and on the northern sea cucumber *Cucumaria frondosa* in the St. Lawrence Gulf and Estuary, eastern Canada. My main fields of research include chemical ecology, reproductive biology, spawning, settlement and daily cycles (movement, feeding, etc.).

HAMMER, HUGH - Sea urchin growth and development.

HAMZA HASSAN, MOHAMED - Ecology and biology of echinoderms from Gulf of Suez - Red Sea.

HAND, CLAUDIA - Conducting stock assessments and biological studies for our local west coast species of sea cucumber, *Parastichopus californicus*, distribution, abundance and productivity.

HARPER, FIONA - Population genetics and hybridization of *Asterias rubens* and *A. forbesi*. *Asterias* phylogenetics.

HAUDE, REIMUND - Stratigraphy and constructional morphology of scyphocrinoids; Devonian and Carboniferous holothuroids; Lower Devonian echinoderms of Argentina.

HAVARDSSON, BJORGOLFUR - The effect of carotenes in feed and environmental temperature on the gonad color and gonad development of the sea urchin *Strongylocentrotus drobachiensis* (Mueller, 1776). The purpose of the experiment is to develop feed suitable for controlling the quality of the urchin gonad in echinoculture.

HEINZELLER, THOMAS - Comparative, mainly neuroanatomical, morphology (TEM, histochem.) of crinoids with special attention to milleri-, bourgeti- and cyrtocrinids; entoparasitic myzostomids of crinoids, mutual effects on host and parasite on an ultrastructural basis.

HENDLER, GORDON - Behavior and functional morphology of deep-sea ophiuroids; taxonomy of Okinawan ophiuroids (with S. Irimura); systematics and natural history of eastern Pacific ophiuroids.

HERDENDORF, CHARLES - Invertebrate fauna associated with deep-sea (>2000 m) shipwrecks; invertebrate fauna of New Zealand (North Island) estuaries and tidal flats; Brisingid fauna of North Atlantic Ocean; Echinoid (esp. sand dollars) invasion of New Zealand estuaries following diversion of freshwater inflow.

HERRINGSHAW, LIAM - Taxonomic and palaeobiological revision of Silurian asteroids, notably those from the Much Wenlock Limestone Formation of the Midlands and Welsh Borders. Also studying a problematic new species of crinoid from the same horizon.

HESS, HANS - New starfish from the Middle Jurassic (Bajocian) of northern Switzerland; Crinoid ossicles from the Lower Jurassic (Pliensbachian of Arzo, Switzerland); Remains of Saccocomids from the Upper Jurassic of Germany (Sieverts-Doreck collection, on loan from Stuttgart Museum).

HICKMAN, JR., CLEVELAND - Development of field guides for the identification of Galapagos marine invertebrate life.

HIGHSMITH, RAYMOND - Intertidal studies in Cook Inlet, Alaska.

HILBUN, NANCY - Echinoderms of Yucatan Peninsula, Mexico for masters thesis.

HILL, ROBERT - Composition of mechanical properties of sea cucumber muscle and connective tissue.

HOBERG, MAX - Investigating the feeding biology of the sea star *Pycnopodia helianthoides* from eel-grass habitats in oiled and reference sites from Prince William Sound following the Exxon Valdez oil spill.

HODGSON, ALAN - Spermatozoan morphology of *Patiriella*.

HOFFMAN, JENNIFER - Interactive effects of ultraviolet radiation and temperature in echinoid embryos; Variations in UV sensitivity among echinoid species and populations; Effects of and defenses against UV in echinoid embryos.

HOLTERHOFF, PETER - Late Paleozoic crinoid paleoecology and systematics; P-Tr extinction and eradication of the Crinoidea.

HOOVER, ROBERT - Aquaculture of *Strongylocentrotus drobachiensis*.

HORSTMAN, DEON - Starting to assess the mariculture potential of an indigenous sea urchin *Tripneustes gratilla* through laboratory rearing of early life history stages.

HOSHI, MOTONORI - Induction of acrosome reaction in starfish.

HOTCHKISS, FREDERICK - Echinoderm pentamerism; Teratology of sea stars; Paleozoic ophiuroid morphology, evolution and classification; Isolated ophiuroid vertebrae and ossicles, Devonian, Bohemia (with Petr and Prokop); new Canadian finds of Ordovician stelleroids (with D.M. Rudkin); ophiuroids from Upper Windsor Group, Mississippian, Nova Scotia (with P. von Bitter).

HOTTENROTT, SUSAN - Dissertation research on the phylogeny of the family Ophiolepididae using morphological features and perhaps sequences. Revision of the genus *Ophiomusium*.

HOWELL, KERRY - The ecology of deep sea asteroids including reproduction, zonation, abundance, distribution, diet and population genetics.

HUNTER, MARGARET - Maine green sea urchin fishery monitoring and assessment.

HUSEYINOGLU, FATIH - Changes in marine biodiversity among marine benthic invertebrate fauna in the Prince's Islands region, Istanbul.

ILAN, MICHA - The study of sponge chemical (and structural) defenses against echinoderm predators; echinoderms which live in association with sponges; the impact of coral reef sea urchins on corals recruitment.

IRIMURA, SEIICHI - Taxonomic study of Ophiuroidea based on the forms of vertebrae; SEM observation on disk granules of Ophiuroidea.

ISHIDA, YOSHIAKI - Taxonomy of Mesozoic and Cenozoic ophiuroids. Escape behavior and postures of extant and fossil ophiuroids after burial.

IVY, GRISILDA - Sea cucumber culture technology.

JABLONSKI, DAVID - Onshore-offshore and latitudinal patterns in the origins of higher taxa, and their subsequent shifts in environmental and latitudinal distribution; studying post-Paleozoic echinoids and stalked crinoids; studying mainly molluscan but some echinoid mass extinction and recovery patterns, especially at the Cretaceous-Tertiary boundary.

JACKSON, JENNIFER - I am studying evolutionary rates in irregular echinoidea and percomorph fish. This is a largely sequencing based project as I am combining evidence from many nuclear and some organellar genes from each group. This data can then be used to test a variety of systematic phylogenetic methods. Since the organisms in question have good fossil record data, we can create phylogenetic trees with numerous fossil-dated nodes and use these to detect evolutionary rate changes over time and in different lineages. This information can be used to look for correlations with life history characteristics such as organism metabolic rate and generation time. We can also check hypotheses about molecular clock behaviour and 'evolutionary explosions' where major species radiations have occurred in short periods to see if these are temporally accompanied by any rate changes.

JACOBSEN, NANCY - Identification and logging of occurrences of invertebrates, vertebrates and geologic features in the Monterey Bay; working especially with asteroidea analysis (WWW images and information will be available in the near future).

JAECKLE, WILLIAM - Nutrient distribution among tissue in planktonic larvae of echinoderms; Asexual reproduction by asteroid larvae; sites and mechanisms of nutrient assimilation by larvae.

JAGT, JOHN - Late Cretaceous crinoid/ophiuroid/asteroid lagerstätte (with S.K. Donovan et al.); paleoecology of crinoid *Dunnocrinus aequalis* (with S.K. Donovan et al.); taxonomy of Late Cretaceous astropectinid, benthoplectinid, goniasterid and pterasterid asteroids (with D.B. Blake, C. Mah, L. Villier, M. Kutscher, S.L. Jakobsen et al.); Cretaceous pterocomid comatulid, preserving tegmen and proximal arms, in collections of the Natural History Museum (London); taxonomy and preservation of Pliocene echinoid faunules from the Netherlands and NW Belgium (with E. Wille and J. Idema); update of Late Cretaceous echinoids from NW Germany, southern Belgium and Austria (with C. Neumann, L. Indeherberge, R. Meuris, R.W.J.M. van der Ham and A. Kroh); Late Maastrichtian holothurian faunules from the Netherlands (with M. Reich); Cretaceous ophiuroids from Japan (with Y. Ishida); Late Cretaceous-Early Paleogene asteroids/ ophiuroids from Denmark (with S.L. Jakobsen); Palaeogene echinoderm faunas from the Netherlands, outcrop and borehole material; Miocene astropectinids and asteroid trace fossils from the SE Netherlands (with R. Fraaye).

JAMES, DANIEL - Preparing a monograph on the holothurians of the seas around India.

JAMIESON, GLEN - Sea urchin abundance surveys; Near-shore community population dynamics.

JANIES, DANIEL - Phylogenetic analyses of the evolution of development among asteroids.

JEFFERIES, RICHARD - The phylogenetic relations between chordates, echinoderms and hemichordates (calcichordate theory).

JEFFERY, CHARLOTTE - Maastrichtian and Palaeocene echinoids; Larval strategy in recent and fossil Temnopleuroid echinoids.

JELL, PETER - Australian Palaeozoic echinoderms. Non-crinoid faunas of Australia, mainly asterozoans of Victoria but also including Mesozoic faunas and some Tertiary comatulids.

JEYABASKARAN, R. - Studies on biodiversity of west coast of India.

JOHNSEN, SONKE - Absorption spectra of echinoderm visual pigments.

JOHNSON, SHERI - Asterinid phylogeny.

JUNIO-MENEZ, ANNETTE - Culture and population genetics of marine invertebrates (sea urchin); Development of mass culture techniques for *Tripneustes gratilla*.

JUNQUEIRA, ANDREA - Population dynamics of echinoids.

KAMMER, THOMAS - Evolutionary paleoecology of Paleozoic crinoids, lithostratigraphy, biostratigraphy, and sequence stratigraphy of marine Mississippian rocks in the east-central United States.

- KASYANOV, VLADIMIR - Cellular mechanisms of reproductive strategies of marine invertebrates.
- KAWAUCHI, GISELE YUKIMI - Reproduction and dispersion - apodous holothurians
- KELLER, BRIAN - Echinoid ecology.
- KELLEY, L. SCOTT - Lower Cretaceous echinoid systematics; Cidaroid taxonomy.
- KELLY, MAEVE - Feasibility of commercial echinoculture in Scotland (*Psammechinus miliaris*); Echinoderm/subcuticular bacteria symbioses.
- KERR, ALEXANDER - Phylogeny of holothurian families; Phylogeny of the Holothuriidae; Evolution of habitat choice in holothurians.
- KINJO, SONOKO - Evolution of skeletal morphology of larvae in the family Echinometridae (Echinoidea).
- KLINGER, THOMAS - Digestion in echinoids, asteroids, and holothuroids; Population biology of tropical holothuroids; manufactured feeds suitable for the mariculture of echinoids.
- KOBAYASHI, NAOMASA - Marine pollution bioassay by using sea urchins; spawning periodicity of sea urchins; Effects of marine pollution upon sea urchin gonads.
- KOGO, ICHIZO - Class Crinoidea - taxonomy.
- KOGURE, YOICHI - Taxonomic and distributional study of ophiuroids and asteroids in the Japan Sea; Ecology of sand dollar *Scaphechinus mirabilis*.
- KRISHNARAJAH, PADMINI - Kinetic studies on carbohydrase enzyme of *Holothuria scabra*.
- KROH, ANDREAS - Oligo-Miocene echinoids of the eastern Mediterranean and the Paratethys.
- KYTE, MICHAEL - Puget Sound vacant benthic habitats.
- LAMBERT, PHILIP - New species of Holothuroidea from Pacific Northwest.
- LANDEIRA, ANA MARIA - Ca²⁺ transport in sea cucumber smooth muscle.
- LANE, DAVID - Asteroid and holothuroid diversity and biogeography studies in the Indo-Malay Archipelago; Population studies of the goniasterid sea star *Iconaster longimanus*.
- LANE, N. GARY - Completing three papers on Famennian (latest Devonian) crinoids from China, Britain, and Germany.
- LAWLEY, JERRY - A quantitative survey of sea urchins on Enmedio Reef, Veracruz, Mexico.
- LAWRENCE, JOHN - Characteristics of arm regeneration in starfish; Nutrition and reproduction of sea urchins;

Life-history strategies of sea urchins and starfish.

LE MENN, JEAN - Paleozoic North-African crinoids (calyx and dissociated columnals); Benthic communities, polynomorphes and medium to high frequencies cycles.

LEE, YOUN-HO - Phylogenetic analysis of Korean east coast sea urchins; Phylogenetic analysis of the antarctic sea urchin, *Sterechinus neumayeri*; analysis of spicule matrix protein gene expression in sea urchin embryos.

LEFEBVRE, BERTRAND - Lower Palaeozoic (mainly Cambrian to Ordovician) primitive echinoderms (stylophorans, solutes, cinctans, ctenocystoids, eocrinoids) from northern margin of Gondwana (Bohemia, Spain, France, Morocco, Sardinia, Portugal) : Anatomy, ecology, functional morphology, phylogeny, biostratigraphy, palaeogeography.

LEISMAN, JULIANNE - Recruitment study of brittlestars in the Banana River; also, aspects of regeneration.

LELAND, AMANDA - My research addresses the question of how the green sea urchin affects coastal zone community structure in the Gulf of Maine via grazing pressure. Currently, I am working with sea urchin harvesters and the Dept of Marine Resources to determine if intense grazing pressure by large urchins can effectively reclaim suitable urchin habitat in areas that are depleted due to overharvesting. In addition, I am looking at grazing rates as a function of algae functional groups and for prominent local species as well as how grazing rates differ for urchins of different sizes and densities.

LESSER, MICHAEL - Molecular biology of photoperiod regulation of gametogenesis in sea urchins; Identification and transmission of bacterial symbionts in *Amphipholis squamata*.

LESSIOS, HARILAOS - Molecular biogeography of echinoids.

LEVIN, VALERY - Shallow water Holothuroidea; systematics, biology feeding and fisheries.

LEVITAN, DONALD - Ecological and evolutionary consequences of sperm limitation in echinoderms; Echinoid grazing pressure in the Caribbean.

LHEKNIM, VACHIRA - I am identifying the echinoderm holdings in the Prince of Songkla University collections. Most of the specimens come from student field trips to the Gulf of Thailand and Andaman Sea.

LIAO, YULIN - Fauna Sinica: Echinodermata: Ophiuroidea.

LINDSTROM, DAWN - Amount of predation on *Ophiocoma echinata* through the use of tethering experiments.

LITVINOVA, NINA - Compiling a Catalogue Ophiuroidea of the Institute of Oceanology.

LORDSON, JINBERT - Seed production and sea ranching of sea cucumbers.

LOVELY, ERIC - Coexistence of hydroid predators in *Tubularia larynx* colonies.

LYONS, KERRY - Management of commercial Green Sea Urchin fishery - Maine.

MACURDA, JR., D. BRADFORD - Mississippian crinoids.

MACZYNSKA, STEFANIA - Cretaceous and Tertiary echinoids particularly from Poland.

MAGSINO, RICHARD - I am currently looking into the genetic relationship of the color ecomorphs of the coral reef starfish *Linckia laevigata* in the Kalayaan Islands Group, South China Sea in western Philippines using both allozymes and DNA sequence of the COI genetic markers. I am also doing PCR- RFLP of the COI gene segment of the blue *Linckia laevigata* for individuals collected from the Palawan shelf and shoal reefs in the Philippines, and eventually compare it with allozyme data to determine the population genetic structure of this species.

MAHARAVO, JEAN - Study about proliferation of *Salmaciella erythracis* in Ambaro Bay (Nosy-Be) Northwest coast of Madagascar.

MAIER, MARTA - Isolation and structural elucidation of secondary polar metabolites from echinoderms of the South Atlantic Ocean.

MALAY, MARIA CELIA - Population genetics of the sea urchin *Tripneustes gratilla*; Sea urchin fishery management / cage grow-out culture.

MALDONADO, ELISA - Study of ecology of deep-sea feather stars from the Bahama Islands (Smithsonian Institution with Dave Pawson). Study of ophiuroid parasites (Los Angeles County Natural History Museum with Gordon Hendler).

MALLEFET, JEROME - Luminescent ophiuroids; morphological, physiological, ecological aspects.

MANIKANDAN K.P. - I am working in a research and development company in the Maldives (Mais Marine Seacucumber Research Centre, Bandaveri, Raa Atoll, Republic of Maldives - *no postal service). We in our research centre are trying to commercialize sea cucumber hatchery and growout. In our R&D Programme we have produced about 65,000 juveniles at 6% survival rate. From the start of my research career, I was fully interested in the embryology of sea cucumbers, particularly in *Holothuria scabra*. At present we have attained an increase in our survival rate from 5% to 15% without using sterilized seawater. We hope to increase it still more by using microbe-free-water. We are using different algal diets for its growth which to our excitement has affected greatly its metamorphosis and cycle duration. I am still carrying on my research by making sea cucumber hatchery and culture a commercial one in par with that of shrimpculture.

MANNI, RICCARDO - Morphological functionality of radial facets of the cyrtocrinids, Jurassic cyrtocrinids of central Italy.

MANNIFIELD, KAY - Dinantian crinoids from northwest Ireland; exploring Camerate ?extinction; Crinoid palaeoecology, autecology and palaeobiology; also looking at carbonate reefal environments etc.

MANSO, CYNTHIA L.C. - The echinoids from the middle Cretaceous of the Sergipe Basin (Brazil); Ophiuroids from the Brazilian coast.

- MAPLES, CHRISTOPHER - Devonian-Permian crinoid and blastoid paleobiogeography rebound from mass extinction; Late Paleozoic invertebrate paleoecology.
- MARAN, ALEKSANDRA - Palaeoecological research of Lower Cretaceous Echinoidea from eastern Serbia (YU); irregular echinoids, especially genus *Heteraster*, *Toxaster*, (Spatangoids) and *Holaster*, biostratigraphy, palaeoecology, taphonomy; Cretaceous echinoids from Serbia (YU); Lower Cretaceous echinoids (Urgonian) and accompanying macro and micro fauna; Lower Cretaceous foraminifers (Orbitolinids).
- MARCOS-DIEGO, CONCEPCION - Study of benthic fauna and flora from the southern of the Livingston Island (South Shetland, Antarctica).
- MARSH, LOISETTE M. - Echinoderms of the Dampier Archipelago, Northwestern Australia.
- MARTIN, RICHARD B. - Introduction and translocation of nonindigenous marine species; development of a marine pest information database; community detection of marine pest incursions.
- MARTINEZ, PRISCILLA C. - Population and reproductive biology of the sea cucumber *Isostichopus fuscus* in the Galapagos Islands.
- MARTINS DELBONI, CYNTHIA - Ossicle formation in apodous holothurians, specifically *Chiridota rotifera* and *Synaptula hydriformis*.
- MASCARENHAS, BERNARDO JOSE DE A. - Pattern of distribution of asteroidea from Guanabara Bay, Rio de Janeiro, Brazil.
- MASHANOV, VLADIMIR S. - Gut development in *Eupentacta fraudatrix*; Ultrastructure of the alimentary canal in holothurians; Regeneration of the digestive tube in holothurians; Ultrastructure of the radial nerve cord in holothurians.
- MASON, JOANNE - Reproductive behaviour of echinoderms.
- MASSIN, CLAUDE - Holothurian taxonomy; Indonesia, Malaysia, Madagascar.
- MASTROTOTARO, FRANCESCO - Benthic communities.
- MATA PEREZ, EUSTOLIA - Sea stars of the Family Luidiidae (Echinodermata: Asteroidea) from the coast of Mexico.
- MATERIA-ROWLAND, CHRISTINE - Developing a manual on coastal and marine monitoring; biological analysis and sediment chemistry analysis of the impact of the aquaculture industry on benthic fauna.
- MATTOS-SEGOVIA, ELIO - The assessment of bioinducers of the settlement in larvae of sea urchin *Loxechinus albus*.
- MAUBON, ROGER M. - Preparing inventories (or catalogs) of historical collections of Echinoderms in institutions like Museum of Nancy (Paul Thiery), Museum of Chambery (Savin, Demoly) and Museum of La Rochelle; addendum (1998) to inventories (1994) of echinoderms in Grenoble, Museum of Natural History.

- McALOON, KELLY - Trace metal solubilization by intestinal fluid of *Sclerodactyla briareus*.
- McCLINTOCK, JAMES - Chemical ecology of echinoderms from the Gulf of Mexico and Antarctica.
- McKENZIE, J. DOUGLAS - Subcuticular bacteria in echinoderms; antifouling mechanisms of echinoderms.
- McLELLAND, JERRY - Identification and ecology of the local echinoderm fauna from the Gulf of Mexico and Caribbean areas.
- McNAMARA, KENNETH - Neogene species of the clypeasteroid *Peronella* from Western Australia; Paleocene spatangoids from the Carnarvon Basin, Western Australia; Miocene echinoids from the Carnarvon Basin, Western Australia; Eocene echinoids from the Bremer Basin, Western Australia; fauna of Australia - spatangoids, holasteroids, clypeasteroids, cassiduloids (with Rich Mooi); general echinoid morphology, physiology and biogeography.
- MEDEIROS-BERGEN, DOT - Selective constraints on brittlestar life histories.
- MEIJER, LAURENT - Molecular mechanisms of cell cycle regulation, using starfish oocytes and sea urchin embryos as cellular models; circadian control of the cell division cycle; identification of novel anti-mitotic compounds, with potential anti-tumor activity, using mechanism-based screening assays (purified cell cycle regulating enzymes; detection of inhibitors of cell cycle regulating enzymes in extracts prepared from marine invertebrates (collaboration with Dr. G.R. Pettit, Cancer Research Institute, Arizona State University, Tempe, Arizona).
- MELIKOV, OKTAY HAMZA - Investigation, evolutionary, systematic and development of orders Spatangoid, Holasteroid and Holoctypoid of Azerbaijan (late Cretaceous and Eocene)
- MENDES, CARLA LIMA TORRES - Feeding ecology of *Echinometra lucunter*; feeding preference in relation to food availability in Cabo Frio region, Rio de Janeiro, Brazil.
- MESSING, CHARLES - Systematics and phylogeny of comatulid crinoids.
- MEYER, CHRISTIAN - Tertiary asteroids from the Eggenburg area (Austria); Fossilium catalogus Austriae, Part Asterozoa.
- MILLER, ROBERT - Evolution and biogeography of the Elaspoda (Holothuroidea).
- MIRONOV, ALEXANDER - 1) Taxonomy of the deep sea echinoderms (echinoids of the order Holasteroidea, stalked crinoids of the suborder Bourgueticrinina, asteroids of the family Porcellanasteridae and holothurians of the family Myriotrochidae). 2) Biogeographical history of the deep sea echinoderm fauna.
- MITROVIC-PETROV, JOVANKA - Upper Cretaceous echinoidea from western Serbia - taxonomy, paleoecology and paleobiogeography.
- MLADENOV, PHILIP - Biology, ecology and population genetics of asexual echinoderms; parthenogenesis in echinoderms; population and evolutionary genetics of *Amphipholis squamata*; sea cucumber fisheries of the Cook Islands; ecology and systematics of New Zealand brittle stars.

MONTAGUE, CHRISTOPHER - Regeneration capabilities of sea stars in closed systems.

MOONEY, ROBERT - Red sea urchin (*Strongylocentrotus franciscanus*) management by the Hesquiaht First Nation: implications for community structure and the successful establishment of a commercial sea urchin fishery.

MOORE, ABIGAIL - Trying to set up a community-based project aiming to combine consensus-based local management of marine resources with various other initiatives to improve the economic and educational status of the villagers. This may be combined with trials of reef repair system and re-seeding of some species. Also possible involvement in one or more holothurian pen-culture projects for rearing juveniles to maturity before processing them.

MORGAN, ANDREW - Demography, life history and aquaculture of the temperate sea cucumber *Stichopus mollis*.

MORGAN, KATHERINE - Lecithotrophy in starfish; the evolution of developmental patterns and life cycle evolution.

MORRILL, JOHN - Experimental analysis of primary invagination in the sea urchin *Lytechinus variegatus*; Descriptive morphology of the embryonic development of the sea urchin *Echinometra lucunter*.

MOTOKAWA, TATSUO - Neuropeptides of echinoderms; Catch connective tissue.

MUKAI, HIROSHI - Community ecology of seagrass beds, including herbivorous sea-urchin grazing effects.

MUSA, NADIRAH - Histology of the sea cucumber.

NAIDENKO, TAMARA K. - Cryopreservation of sea urchin embryos and larvae bioassay by using sea urchin eggs and embryos.

NAKAI, SAORI - Echinoids of the family Temnopleuridae.

NATARAJAN, P. - Aquaculture, fish and shrimp culture, fish pathology; planning to implement echinoderm culture in India.

NEBELSICK, JAMES - Taphonomy of reef echinoids; Lower Miocene echinoid palaeobiogeography.

NEILL, BRUCE - Biogeography, systematics and population biology of echinometrids

NEPOTE, ANA CLAUDIA - As a graduate student from CICESE (Ensenada, Mexico), I am doing my thesis project on the Upper Gulf of California, Mexico. This area represents one of the few places in the world where the tidal range is around 7 m during low tides. The physical conditions in the Upper Gulf of California gives opportunity to study the processes that shape the assemblages of marine invertebrates communities.

NESTLER, HELMUT - Cretaceous echinoids from South Yemen; Isolated elements of maestrichtian crinoids.

NEUMANN, CHRISTIAN - Cretaceous deep-sea echinoids from Spain; Post-larval development of Cretaceous

hemiasterid echinoids; Origin of urchinid echinoids.

NICHOLS, DAVID - Reproductive cyclicity in the New Zealand crinoid *Oxycomanthus plectrophorum*; Seasonality in resource allocation in the English Channel starfish *Luidia ciliaris*.

NICOSIA, UMBERTO - Systematics and evolutive trends of Cyrtocrinids.

NISHIHARA, MORITAKA - Effect of heart urchins on coral community structure of the sandy bottom.

NISHIZAKI, MICHAEL - Fluid dynamic influences on the growth and survival of juvenile sea urchins (*Strongylocentrotus franciscanus* and *S. purpuratus*) - for MSc started Sept 1998 at University of Northern British Columbia.

NITHYANANDAN, MANICKAM - Working as a junior research fellow in Zoological Survey of India Chennai under the project "Survey & Inventorization of Marine Biodiversity of East Coast of India". Preparing checklist of echinoderms of east coast of India. Starfishes of Indian waters.

NOGUEIRA LIMA, RENATA PIRES - Reproductive cycle of the holothurian.

NOJIMA, SATOSHI - Feeding habits and effects of sea stars on benthic organisms.

O'CONNOR, BRENDAN - Bioturbation rates of infaunal echinoderms; Connection between hydrographic features and high density ophiuroid populations.

O'HARA, TIMOTHY - Echinoderms of Macquarie Island (final stages); Patterns of diversity for faunal assemblages on subtidal reefs off central Victoria (Ph.D. thesis, University of Melbourne).

OJEDA, F. PATRICIO - Ontogenetic changes in the diet of *Loxechinus albus*: an ecophysiological approach. Ecology of intertidal rockpools: role of sea urchins and fishes in determining community patterns.

OJI, TATSUO - Paleontology and biology of stalked crinoids; especially regeneration of crown and arms, and evolutionary history of isocrinines.

OLSZEWSKA-NEJBE, DANUTA - Studying the irregular echinoids in the North European Province; stratigraphy and paleobiogeography.

OLVER, JANE - Mesozoic irregular echinoids; extant British species.

ORTIZ, EDUARDO MORTEO - The history of artisanal fisheries of starfish in Baja California, Mexico (Echinodermata: Asteroidea) for a degree in Oceanology at the Autonomous University of Baja California, Mexico.

OTERO, MARIA DEL MAR - Energy partitioning, growth and reproductive strategies in a new aquaculture species, the green sea urchin *Psammechinus miliaris* (Ph.D. in progress).

OYEN, CRAIG - Cenozoic echinoid biostratigraphy and taxonomic descriptions (primarily in the Gulf and

Atlantic Coastal Plain areas of the U.S.). Fossil comatulid crinoid biostratigraphy and taxonomy in the same region. Biofacies and paleoecology interpretations of Cenozoic strata in Florida.

PABIAN, ROGER - Late Paleozoic crinoids, paleoecology, associated fauna and parasitic, prey and predation relations; biostratigraphy.

PADILLO, LOVELE - Asteroidea.

PAGETT, RICHARD - Caspian Sea: literature review.

PAIK, SANG GYU - Ecology of *Asterias amurensis*.

PARDO ANGEL, ROBERTO - Ecology and population dynamics of echinoderms (particularly echinoids and ophiuroids) - currently, population dynamics of sand dollars.

PARMA, SARA GRACIELA - Cretaceous and Tertiary echinoids from Patagonia and La Pampa Province, Argentina.

PARSLEY, RONALD - Reworking stylophoran phylogeny.

PAULS, SHEILA MARQUES - Distribution of the echinoids in coral communities.

PAYNE, ADAM - Studying the association between damselfish and brittlestars in Jamaica. I am especially interested in predatory and carrion feeding brittlestars and associations between the ophiuroids and other animals of different taxa and phyla.

PEARCE, CHRIS - Roe enhancement of the green sea urchin using prepared feeds. Juvenile grow-out strategies for the green sea urchin.

PENCHASZADEH, PABLO - Working on the diet of endemic starfish *Luidia* and *Astropecten* and the reproduction of the sea urchin *Pseudechinus* and the holothurian *Psolus*.

PENNINGTON, J. TIMOTHY - Primary production in the central California upwelling zone; brachiopod larvae of the Monterey Bay Submarine Canyon.

PEREIRA MAJER, ALESSANDRA - Reproductive and behavioral aspects of *Synaptula hydriformis* (Holothuroidea, Apoda) reared in laboratory.

PEREZ-RUZAFÁ, ANGEL - Wetlands and coastal lagoons of Galapagos Islands (Ecuador) - basis for its protection and management; Iberic fauna; study of benthic fauna and flora from the southern of Livingston Island (South Shetland, Antarctica); design of new algorithms for the primary productivity and water quality prediction in coastal zones using remote sensing techniques.

PETR, VACLAV - Preparation of a photographic, comprehensive book, "Atlas of Echinoderms of the Barrandian area". This book will be written in English and published at the end of 1998.

PETROVA, IRINA YU. - Structure and functions of echinoderms lectins.

- PHILIPPE, MICHEL - Miocene echinoids.
- PIEPENBURG, DIETER - Ecology of brittle stars in Arctic and Antarctic seas. Echinoderms of the Meteor Seamount.
- PIZER, MARGARET - Evolution of echinoderm metamorphosis.
- PODOLSKY, ROBERT - Evolution of life history characters in ophiuroid genus *Macrophiothrix*; Evolution of gamete characters in echinoid genus *Strongylocentrotus*.
- PORTELL, ROGER W. - Echinoid biostratigraphy of Florida (especially undescribed Miocene taxa); Miocene echinoderms of Jamaica.
- PROKOP, RUDOLF JAN - Devonian echinoderms from the Barrandian area; systematics, palaeoecology, biostratigraphy (together with V. Petr).
- PUTCHAKARN, SUMAITT - Echinoderms associated with some sponges in coral reefs along the eastern coast of the Gulf of Thailand.
- QUEVEDO, RUY - Reproduction and culture of sea cucumbers.
- RAJAKUMAR, C. P. - Biology and ecology of certain Indian echinoderms; investigating the bioactive substances of Indian echinoderms.
- RAM MOHAN, M. K. - Taxonomical studies of echinoderms.
- RANNER, HERWIG - Marine echinoderms and bivalves and their potential as recorders of climate change (Ph.D. thesis in progress).
- REGIS, MARIE-BERTHE - Population dynamics of regular echinoids in the Mediterranean; Enzymatic study of the nutrition of *Paracentrotus lividus* (Echinodermata: Echinoidea)
- REGNAULT, SERGE E. - Echinoderms (Stylophora, Eocrinoidea, Cystoidea); Paleozoic; North Gondwana.
- REICH, MIKE - Revision of the fossil holothurian parafamily Priscopedatidae Frizzell & Exline, 1956 (Ordovician-Quaternary) [in collaboration with Prof. Dr. H. Mostler, Innsbruck]; Silurian holothurians from the Isle of Gotland (Sweden); Campanian and Maastrichtian holothurians from Europe; fossil isolated calcareous ring elements of Holothuroidea (Palaeozoic and Mesozoic); Silurian ophiocistioids from the Isle of Gotland (Sweden) [in collaboration with M. Kutscher, Sassnitz].
- REMPALA, ERIN - Jaw ossicle evolution in the asteroids; phylogenetic analysis of *Linckia*.
- REY, DANIEL - Cretaceous and Tertiary echinoids of Spain.
- RINELLI, PAOLA - National and international trawl-surveys projects (GRUND; MEDITS) for the evaluation of demersal resources (in which the macrobenthic fauna is studied with trawl net as well as grab and dredge).

- ROCCATAGLIATA, ALEJANDRO J. - Chemistry of physiologically active compounds isolated from starfishes and brittle stars in the South Atlantic Ocean.
- RODRIGUEZ, SEBASTIAN - Subtidal brown macroalgae forests as food sources for intertidal organisms: role in determining community patterns in the rocky intertidal environment.
- ROGERS-BENNETT, LAURA - Examining the impact of larval feeding history on the growth and success of newly settled red sea urchins; examining the survival of newly settled urchins exposed to micro-predators in the benthos; spatial patterns in the growth and survival of juvenile red abalone.
- ROSE, EDWARD P.F. - Jurassic irregular echinoids; Cenozoic holoctypoid echinoid *Echinoneus*.
- ROTHENBERGER, PAIGE - Studying coral reef ecology and the *Diadema* epizootic from 1983.
- ROTMAN CLARK, HELEN - Systematics of Southern Ocean asteroids.
- ROUX, MICHEL - Taxonomy, ontogeny, ecology of recent and fossil Articulata (Crinoidea).
- ROWE, FRANK - Indo-west Pacific echinoderms and their systematics and zoogeography; Indian Ocean echinoderms with A.C. Campbell.
- ROY, MICHAEL - Evolutionary history of *Amphipholis squamata*; Phylogeography and human influence in *Ophiactis savignyi* distributions; The effects of fiords on population structure of marine invertebrates; Developmental evolution of asteroids.
- RUSSELL, MICHAEL - Population biology, ecology and fisheries management of green sea urchins in the Gulf of Maine.
- SABA, MASAKI - Taxonomic studies of Japanese sea-stars.
- SALAMON, MARIUSZ ANDRZEJ - Triassic crinoids.
- SAMYN, YVES - Distribution and biodiversity of holothuroids along the Kenyan coast; feeding biology of commercial holothuroids from Kenya; reproductive biology of commercial holothuroids from Kenya; distribution and biodiversity of regular echinoids along the Kenyan coast.
- SANFORD, ERIC - Influence of water temperature on the physiology and community role of the sea star, *Pisaster ochraceus*.
- SANO, MINORU - Population ecology of *Strongylocentrotus nudus*.
- SANTILLAN, AUGUST - Studying the growth rate of the starfish *Oreaster nodosus* in the wild (in a marine reserve).
- SASTRY, DWADASI R.K. - Echinoderm fauna of Andaman and Nicobar Islands and their coral reefs.
- SAUCEDE, THOMAS - Apical system and primitive irregulars; systematic and plates structure in the family

Pourtalesiidae.

SCALLY, KEVIN - Tooth form function and evolution of invertebrate dental systems (in particular, echinoids), especially tooth sharpening behaviour (thegosis).

SCHEIN, JASON - The relationship between living echinoid populations and their skeletal remains in the sea-floor sediment, San Salvador, Bahamas.

SCHELTEMA, RUDOLF - Capacity of larvae to delay settlement, competence of larvae encountered in the open ocean to retain their capacity to metamorphose.

SCHOPPE, SABINE - Sea cucumber fishery in Philippines. Morphology and taxonomy of *Ophiactis spp.*

SCHUETZ, ALLEN - Mechanisms of hormone signal transduction on the starfish gonads.

SCHUHMACHER, HELMUT - Bioerosion on Red Sea coral reefs within the context of carbonate budget.

SCHULTZ, HEINKE - Identifying the Antarctic irregular echinoids housed in the Alfred-Wegener-Institute for Polar and Marine Research in Bremerhaven as a volunteer; cidarids, but mainly brooding schizasterids; also interested in other irregulars.

SEETO, JOHNSON - Taxonomy of Fiji echinoderms.

SERAFY, D. KEITH - Biogeography of Atlantic Ocean echinoids; Age and growth studies of *Echinarachnius parma*.

SEVASTOPULO, GEORGE - Functional morphology of *Pygmaeocrinus* (with Rudolf Prokop); Carboniferous microcrinoids from northwest Ireland; A new Carboniferous microcrinoid genus from Belgium; Late Tournaisian crinoid faunas associated with Waulsortian carbonate mounds.

SEWELL, MARY - Life-history and early development in echinoderms; Temperature effects on larval development; holothurian reproduction and ecology; larval physiology.

SHEPHERD, SCORESBY - Sea urchin culture.

SHICK, J. MALCOLM - Effects of UV on echinoid eggs and embryos; dietary accumulation of mycosporine-like amino acids by echinoids.

SHIRLEY, THOMAS - Predator-prey and competitive interactions between sea otters, crabs and starfish in Glacier Bay, Alaska.

SIBUET, MYRIAM - Deep sea ecology and deep sea echinoderms; Cold deep environments; Deep sea basins.

SKOLD, MATTIAS - The role of environmental factors in regulating sexual and asexual reproduction in sea stars. Genetics of sexual and asexual populations of the sea star *Coscinasterias muricata* around New Zealand. Population dynamics, growth, regeneration, feeding and predator-prey interactions in brittle stars. Structuring mechanisms in marine benthic populations; interactions between burrowing heart urchins (*Brissopsis lyrifera*)

and brittle stars (*Amphiura chiajei*). Ecotoxicology and fate of contaminants in marine environments, especially infaunal brittle stars.

SLOAN, NORMAN A. - Sea cucumber harvest on west coast of North America.

SMILEY, SCOTT - Annotated catalogue of holothurians with synonymies; Annual cycle of *Parastichopus californicus*, changing conditions of body wall muscles.

SMIRNOV, ALEXEI V. - Arctic echinoderms fauna; holothurians of the North Pacific; Taxonomy of apodid and molpadid holothurians.

SMIRNOV, IGOR S. - Taxonomic studies of arctic and antarctic ophiuroids, creation of illustrated computer key for arctic brittle-stars and data bases on ophiuroids of Arctic and Southern Oceans.

SMITH, ANDREW - Cretaceous echinoids (monography); Electronic Guide the Genera of Echinoidea.

SMITH, L. COURTNEY - Evolution of the deuterostome immune system; Immunity and cellular defense mechanisms in invertebrates; Sea urchin immunology.

SMITH, MICHAEL - Mitochondrial gene order and early deuterostome evolution; Molecular phylogenetics of larval life history strategies.

SOLANDT, JEAN-LUC - Exploring possibilities of funding toward using *Diadema* as a grazing 'tool' in deeper reef communities in order to restore >10m deep Jamaican (and possibly wider Caribbean) reefs to pre-hurricane coral dominated seascape. Research would involve movement of animals top deeper waters, coralling them and subsequently monitoring effects of their grazing at intermediate (8 per m square) densities.

SOLIS-MARIN, FRANCISCO - Ecology and molecular taxonomy of echinoderms in the North Atlantic (for Ph.D. program at Southampton Oceanography Centre, in progress).

SOLOVJEV, ANDREY - Holasteroid and spatangoid echinoids (evolution, classification, paleoecology); Echinoids on the Cretaceous/Paleogene boundary.

SONNENHOLZNER, JORGE - Systematic evaluation of the reef echinoderms at the Machalilla National Park, Manabi, Ecuador; Ecology of the sand dollar *Mellita longifissa* Michelin intertidally at the Machalilla National Park, Manabi, Ecuador.

SPENCER, LARRY - Symbiotic relationship between *Holothuria atra* and the polka-dot crab in the Hawaiian sublittoral zone.

SPIRINA, IRINA - Morphology and regeneration of respiratory trees in holothurians.

SPIRLET, CHRISTINE - Starting new project at Universite de Mons-Hainaut (Belgium) in September: Study of the impact of sand and gravel extraction on the coastal ecosystem, with emphasis on benthic organisms.

SPONER, RENATE - Molecular evolution of ophiuroids: phylogeny, phylogeography, population genetics in *Amphipholis squamata*, *Ophiactis savignyi*, *Ophiocoma scolopendrina*. (<http://www.dnapop.zi.ku.dk>)

- STANCYK, STEPHEN - Population biology, predation and regeneration of *Ophiura sarsi*; sublethal predation of echinoderms; Use of markers and growth rings of ophiuroid ossicles for age/growth studies.
- STARMER, JOHN - Annotated checklist of ophiuroid fauna of Guam; Additional ophiuroid records from Mauritius; Annotated checklist of ophiuroids from Palau; Population dynamics of *Tripneustes gratilla* in the micronesian country of Palau.
- STEWART, BRIAN - Reproductive biology of *Astrobrachion constrictum* and *Ophiopsammus maculata* (Echinodermata: Ophiuroidea); Growth rate and reproduction in *Stichopus mollis* (Echinodermata: Holothuroidea).
- STICKLE JR., WILLIAM - Effects of seasonal and latitudinal temperature variation on aerobic-anaerobic transitions in the *Leptasterias spp.* complex and the biological impact of the ciliated protozoan parasite, *Orchitophrya stellarum* on asteroiid sea stars from the west coast of North America.
- STOCK, STUART - Structure of sea urchin teeth, lanterns, spines with noninvasive x-ray methods.
- STOCKLEY, BRUCE - The phylogenetics of Spatangoid sea urchins.
- STOEHR, SABINE - Diversity in tropical Ophiuroidea.
- STORC, RICHARD - Ophiuroids and asteroids from the Upper Cretaceous (Cenomanian- Turonian) of the Bohemian Cretaceous Basin (Czech Republic).
- STRATHMANN, RICHARD - 1. Effect of brooded and pelagic development on the evolution of embryonic cell cycle durations. 2. Effect of developmental allometry of larval ciliary bands on food-limited larval growth rates. 3. Anal suspension feeding by sea cucumbers (in collaboration with Will Jaekle).
- STUMP, RICHARD - Population dynamics of *Acanthaster planci* (L.)
- SUMRALL, COLIN - Phylogeny of primitive Echinodermata; Edrioasteroid systematics; primitive echinoderm paleoecology.
- TABLADO, ALEJANDRO - Taxonomy of Asteroidea from Southwestern Atlantic; Intertidal ecology in rocky shores of Argentina.
- TAHERA, QASEEM - Prepared an "Illustrated key to the Echinoderms of Pakistan". (in press).
- TAKAHASHI, KEIICHI - Physiology of the madreporite; physiology of echinoid spine muscle and catch apparatus; motile mechanism of echinoderm sperm flagella.
- TALBOT, TIFFANY - Salinity tolerances and other factors of *Ophiophragmus filigraneus*.
- TAVARES, YARA APARECIDA GARCIA - Studying reproductive biology of echinoids (*Echinometra lucunter*, *Arbacia lixula* and *Lytechinus variegatus*), allocation of resources, biochemistry, feeding, sea urchin fishery monitoring.

- TELFORD, MALCOLM - Collagen in tooth support mechanism of clypeasteroids; Podial forces in *Asterias*; computer simulation of *Dendraster* distribution.
- THANDAR, AHMED - New species of holothuroid echinoderms from off KwaZulu-Natal coast; Revision of the holothuriid genus *Actinopyga* in the Indo-West Pacific region.
- THAPANAND, THANITHA - Population dynamics of fish and invertebrates of Thailand.
- THIERRY, JACQUES - Jurassic fossil irregular echinoids of North West European Peri- Tethyan platforms and basins.
- THOMAS, FLORENCE - Physical properties of echinoderm gametes. Effect of hydrodynamics on gametes and developmental stages.
- THORNDYKE, MICHAEL - Regeneration, neuronal development and regeneration, growth factors, gene-regulation of regeneration and response to environmental conditions.
- THORSEN, MARIANNE - The ecophysiology of the irregular sea urchin *Echinocardium cordatum* - interactions with gut microbiota.
- TIAGO, CLAUDIO - Biology of marine invertebrates, especially echinoderms.
- TIEFENTHALER, LIESL - Research on the red brittlestar *Amphiodia urtica*.
- TOMAS, FIONA - Biology and ecology of the sea urchin *Paracentrotus lividus* on *Posidonia oceanica* meadows.
- TOMMASI, LUIZ ROBERTO - Palaeobiogeography and modern biogeography of echinoderms in the South Atlantic and Antarctic regions (especially in Brazilian REVIZEE material - NE and SE Brazilian areas.
- TRONCOSO, JUAN - Identifying collections of Antarctic echinoderms in the Natural History Museum of Concepcion, Chile; studying several species of echinoderms from the Pacific coast Eight Region; the conservation problems of the echinoderms of Chile and their future projection.
- TURNER, RICHARD - Various projects on systematics and biogeography of echinoderms from the western Atlantic, all classes.
- TURON, XAVIER - Evaluation of sublethal impact of pollution on benthic invertebrates; Reproductive strategies of ascidians and echinoderms; Chemical defense mechanisms in sponges.
- TUTERA, PETER - Monograph of the irregular echinoids of Prydz Bay, Antarctica; new *Pachycentrotus* species.
- UBAGHS, GEORGES - New echinoderms from the Upper Cambrian of the Montagne Noire (southern France).
- URBINA BURGOS, MEDARDO - Revision of the species *Athyonidium chilensis*, especially anatomy and histology.

- UTHICKE, SVEN - Population genetics and stock size of commercially fished holothurians; asexual reproduction in holothurians.
- v.JUTERZENKA, KAREN - Ecology of Arctic ophiuroids and their function within the benthic food web (within the framework of AOSGE).
- VADAS, ROBERT - Ecology and reproductive biology of sea urchins along the coast of Maine. Funded by NOAA Sea Grant (1995-1997); temporal and spatial variability in reproduction and roe yield in green sea urchins. Tentatively funded by Maine Dept. Mar. Res. (1996-1997).
- VADET, ALAIN - Les oursins du Jurassique de France et des pays limitrophes : critères de détermination, répartition stratigraphique et géographique, variations en fonction du milieu.
- VALENTINE, JOE - Studying the interaction between a local sea urchin species and a recently introduced macroalga in subtidal waters (for PhD at the University of Tasmania).
- VALENTINE, JOHN - Continuing investigations of sea urchin herbivory and predation on sea urchins in the Florida Keys.
- VAN DER HAM, RAYMOND - *Hemiaster* and *Echinogalerus* of the Upper Cretaceous of NW Europe.
- VAN HOUT, TESSA - Distribution of *Echinothrix diadema* in Kenyan reefs.
- VANDENSPIEGEL, DIDIER - The defensive mechanism of the Echinodermata: structure and functions of the Cuvierian tubules.
- VANDERKLIFT, MAT - Ecology of sympatric sea urchins.
- VAROTTO, RICARDO - Growth of the irregular echinoid *Cassidulus mitis* (Cassiduloida).
- VEGA, JUAN TORRES - Study of the echinoids and ophiuroids collected on the Campanas Oceanograficas Proibe I-II-III-IV-V.
- VELARDE, RONALD - Benthic infauna and trawl invertebrates of the Southern California Bight, taxonomy and distributional ecology (in conjunction with other monitoring agencies in southern California).
- VERLING, EMMA - Niche plasticity in echinoderms in Ireland - in particular, the asteroid *Marthasterias glacialis* and the echinoid, *Paracentrotus lividus*.
- VIADA, STEPHEN - Characterization study of the 'pinnacles' topographic features in the north central Gulf of Mexico.
- VIKTOROVSKAYA, GALINA - Reproduction of invertebrates in artificial and natural conditions.
- VILLALOBOS, FRANCISCO - Ecology of echinoderms.
- VILLIER, LOIC - Radiation of the genus *Heteraster* (Lower Cretaceous Spatangoida); taxonomy, phylogeny

and disparity (for Ph.D. dissertation). Also, taxonomic and phylogenetic revision of the family Stauranderasteridae (fossil Asteroidea).

VISTISEN, BODIL - Studying the two brittle stars *Ophiura albida* and *Amphiura filiformis* concerning their tolerance towards hypoxia with and without the presence of hydrogen sulphide.

WALKER, CHARLES - We are concerned with the normal and altered structure and function of tissues and genes in marine model organisms. Currently, we focus on manipulating gametogenesis of the green sea urchin for applications in land based aquaculture and on understanding leukemogenesis and the effects of antineoplastic drug therapies on leukemia in the softshell clam model for acute lymphocytic leukemia in humans.

The Sea Urchin Model - On the eastern coast of the United States, adult, green sea urchins (*Strongylocentrotus droebachiensis*) are the subject of a fishery for their ripe gonads. Unregulated harvesting has resulted in loss of productive beds and a projected collapse of the fishery. A suite of technologies exists for developing modular, land-based aquaculture ventures that depends on manipulating sea urchin genes relevant to the somatic and gametogenic cells within the gonads. In particular, the cDNA sequences for a major yolk protein (MYP) and for the transcription factor c-myc are important. Together with the urchin industry, we are using molecular procedures to produce urchins that are characterized by superior size, taste, color, texture and firmness.

WALLACE, BRENDA - Sea urchin larval culture - *Lytechinus variegatus*.

WAREN, ANDERS - Gastropods parasitic on echinoderms.

WATERS, JONATHAN - Molecular analysis of the fissiparous asteriid genus *Coscinasterias*.

WATTS, STEPHEN - Steroid biology in echinoderms; aquaculture of echinoids.

WEBSTER, GARY - 1) Continuing compilation of the bibliography and index of Paleozoic crinoids. 2) Devonian and Carboniferous crinoids of Iran (with Chris Maples). 3) Carboniferous crinoids of Algeria (with Chris Maples, Terry Frest, George Sevastopulo, and Johnny Waters). 4) Carboniferous crinoids of the western U. S. and SE Alaska.

WELSCH, ULRICH - Innervation of the juxtaligamental cells in crinoids; analysis of the connective tissue of crinoids.

WHITE, CHRIS - Crinoids.

WIDDISON, ROSANNE - Ph.D. dissertation (started 10/97) entitled, Palaeobiology of Silurian crinoids. Involves a complete taxonomic review of UK Silurian collections and establishment of crinoid communities in UK. Also looks at the variations in US and UK faunas.

WIGHAM, BEN - Reproductive biology, ecology and population genetics of Elaspodid holothurians from the NE Atlantic; influence of seasonal phytodetrital fluxes on changes in the structure of abyssal megafauna communities (for Ph.D. dissertation).

WILKIE, IAIN - Functional morphology and mechanics of the echinoid lantern; Functional morphology and mechanics of the ophiuroid mouth-frame; organisation, mechanics and physiology of echinoderm connective

tissues; autotomy mechanisms of echinoderms and other invertebrates.

WILLCOX, MARK - Molecular phylogeny of asteroids; genetic basis to salinity adaptation in asteroids.

WILLIAMSON, JANE - An autogenic shift in the response of the echinoid, *Holopneustes purpurascens*, to host plant chemistry (current Ph.D. at the University of New South Wales). Intense grazing by the sea urchin *Heliocidaris erythrogramma* on algal community structure (group project).

WIRTZ, PETER - Zoogeography of the area Azores to Sao Tome Island; Sea urchin behaviour; Writing a book (with about 1000 underwater photos) on eastern Atlantic invertebrates.

WOODLEY, JEREMY - The abundance of *Diadema* and *Tripneustes* on the fore-reef at Discovery Bay, Jamaica; Spawning behaviour of coral reef ophiuroids.

WRAY, GREGORY - We are working on a range of projects, most of which have to do with the evolution of development and life history in echinoderms. They include: (1) an analysis of the changing roles of key developmental regulatory genes in echinoderms, including differences in expression domains and function between echinoderms and other phyla and also the diversification of these features within echinoderms; (2) a phylogenetic analysis of the Asterozoa based on mitochondrial and nuclear sequence data; (3) a detailed analysis of the evolution of gene regulatory sequences (promoters and enhancers) for several echinoderm genes; and (4) a study of cell lineage and cell-cell interactions during the development of the adult rudiment in sea urchins.

YAMAGUCHI, MASASHI - Supervising a thesis on *Acanthaster planci*.

YANAGISAWA, TOMIO - Larval development from plutei to metamorphosis of the sea urchins in the Ogasawara (Bonin) Islands.

YANG, MEI-SUN - Fisheries management.

YOKOTA, YUKIO - Extracellular matrix and morphogenesis in the sea urchin; Phylogenetic analysis of yolk proteins in sea urchins and starfishes; Functions of vitellogenin and vitellogenin in the sea urchin and starfish.

YOSHIZATO, KATSUTOSHI - Molecular evolution of invertebrate collagen.

YUND, PHIL - Fertilization processes, gamete toxicology, and the genetic differentiation of populations of *Strongylocentrotus drobachiensis*.

ZARDUS, JOHN - Population genetics of deep sea invertebrates, larval development and soft sediment ecology.

ZAVODNIK, DUSAN - Diversity, ecology and regional distribution of Adriatic Sea echinoderms.

ZITT, JIRI - 1. Lower Cretaceous crinoids of West Carpathians; crinoids and echinoids of the Bohemian Cretaceous Basin (late Cenomanian- early Turonian). 2. Asterozoa (Echinodermata) from the Upper Cretaceous of Bohemia (grant project starting in January 2001 and ending in December 2003).

☆☆☆ THESES AND DISSERTATIONS ☆☆☆

BELGIUM

Ph.D. Dissertation

Dimitri Deheyn. 1998. Study of bioluminescence in the ophiuroid *Amphipholis squamata* (Delle Chiaje, 1828) (Echinodermata): structure of photogenous sites; characteristics of expression and function of the bioluminescence. Free University of Brussels (ULB).

BRAZIL

Ph.D. Dissertation

Y.A.G Tavares. (in progress:2000-2004). Reproductive biology of three species of echinoids in different habitats at Parana's coastal waters (south Brazil). Universidade Federal do Paraná.

ENGLAND

Ph.D. Dissertation

Jennifer Jackson (in progress). Evolutionary Explosions and changes in molecular rates: testing molecular clocks against a known fossil record. University of Oxford.

FRANCE

Ph.D. Dissertation

Bertrand Martin-Garin. 2000. Diversité structurale et morphologique du test des oursins Collyritidae du Bajocien-Bathonien; implications biostratigraphiques, environnementales et phylétiques (DEA Dissertation- Université de Bourgogne, DIJON).

Sébastien Moyne. 2001. Disparité morphologique et diversité taxinomique chez le genre *Nucleolites* (Echinoidea; Cassiduloidea) du Bajocien-Oxfordien du Bassin de Paris: morphologie et architecture du test, modalités de croissance et tendances évolutives, implications biostratigraphiques et paléoécologiques (DEA Dissertation-Université de Bourgogne, DIJON).

GERMANY

Ph.D. Dissertation

Heiko Sahling. 2001. The influence of hydrogen sulfide on the benthic community structure at cold seeps and interactions between the cold-seep and deep-sea ecosystems - three case studies [in English]. Kiel University.

M. Sc. Thesis

Bernhard Müller. 2001. Distribution patterns of epibenthic assemblages on the Meteor Seamount [in German]. Kiel University.

INDIA

Ph.D. Dissertation

M.K. Ram Mohan. 2001. Annual reproductive cycle of sea cucumber *Holothuria atra* Jaeger at Tuticorin, Southeast coast of India. C.I.F.E. (Deemed University of ICAR), Mumbai-61, India. (Ph.D. dissertation submitted).

M.Sc. Thesis

Manickam Nithyanandan. 2001. Anti-bacterial activity of seaweeds collected from Thondi coastal waters, Palk Bay, South east coast of India. M.sc., Oceanography and coastal area studies, Alagappa University, Karaikudi, Tamilnadu, India.

IRELAND

Ph.D. Dissertation

Amy Greenwood. 2000. The reproductive ecology of echinoderms in Lough Hyne Marine Nature Reserve, with special reference to the cushion star *Asterina phylactica* Emson and Crump. University College Cork.

MEXICO

Tesis de Licenciatura

Francisco Benitez Villalobos. 2000. Comunidad de Equinodermos asociada a la zona arrecifal Puerto Escondido-Bahías de Huatulco, Oaxaca, México. Tesis de Licenciatura, Universidad del Mar, Puerto Angel, Oaxaca, México.

PHILIPPINES

M. Sc. Thesis

Conlu, P.V. 1960. Studies on the echinoderms of Manila Bay mostly taken by otter trawl. Universidad de Santo Tomas.

Domatay, J.S. 1928. Morphology of *Stichopus chloronotus*. University of the Philippines.

Grageda, O.P. 1966. The littoral asteroid fauna of Guimais strait and vicinity. Universidad de Santo Tomas.

Ureta, M.B.S. 1956. Anatomical studies on *Halodeima pulla* (Selenka). Universidad de Santo Tomas.

SOUTH AFRICA

Ph.D. Dissertation

M. Natasen-Moodley. 2000. A taxonomic study of some holothuroid echinoderms taken from Southern African waters, west of Port Elizabeth, in the collections of the South African Museum, University of Durban-Westville.

SPAIN

Ph.D. Dissertation

Patricio Dominguez Alonso. 1999. Sistemática, Anatomía, Estructura y Función de Ctenocystoidea (Echinodermata Carpoidea del Paleozoico Inferior. 538 pages. Universidad Complutense de Madrid, Facultad de Ciencias Biológicas.

Hill, R.B. Role of calcium in excitation-contraction coupling in echinoderm tissues. Session A.12. Physiology of Echinoderms. **Organized by M.R.Elphick, R.B.Hill and M.C. Thorndyke for the Animal Biology Section of the Society for Experimental Biology's Annual Main Meeting, 27-31 March 2000, at Exeter University. In press at J.E.B.**

Indeherberge, L., E. Defour, R. van der Ham, and J.W.M. Jagt. 1999. What is *Micraster cipliensis* Schlüter, 1897 ? (Late Cretaceous echinoids). In: M.D. Candia Carnevali & F. Bonasoro (eds). Echinoderm Research 1998. **Proc. 5th Echinoderm Conf., Milan/Italy/7-12 September 1998: 299. A.A. Balkema, Rotterdam/Brookfield.**

Jagt, J.W.M. 1999. Echinoderms and the K/T boundary in the Maastrichtian type area (SE Netherlands, NE Belgium). In: M.D. Candia Carnevali & F. Bonasoro (eds). Echinoderm Research 1998. **Proc. 5th Europ. Echinoderm Conf., Milan/Italy/7-12 September 1998: 301-306. A.A. Balkema, Rotterdam/ Brookfield.**

Jagt, J.W.M. 1999. Notes on two Late Cretaceous comatulid crinoid genera. In: M.D. Candia Carnevali & F. Bonasoro (eds). Echinoderm Research 1998. **Proc. 5th Europ. Echinoderm Conf., Milan/ Italy/ 7-12 September 1998: 307-308. A.A. Balkema, Rotterdam/Brookfield.**

Jagt, J.W.M., and M.J.M. Deckers. 1999. A Late Maastrichtian crinoid-ophiuroid Lagerstätte. In: M.D. Candia Carnevali & F. Bonasoro (eds). Echinoderm Research 1998. **Proc. 5th Europ. Echinoderm Conf., Milan/Italy/7-12 September 1998: 309-310. A.A. Balkema, Rotterdam/Brookfield.**

Martin-Garin, B., B. David, and J. Thierry. 2001. Transformées de Fourier et grilles "TPS" pour quantifier les relations morphologie-environnement sédimentaire chez l'oursin *Collyrites analis*. **2ème Symposium de Morphométrie, Muséum national d'Histoire Naturelle, Amphithéâtre Grande galerie de l'Évolution, Paris, 8-9 Mars 2001. Poster & livre des résumés : 32-33.**

Martin-Garin, B., B. David, and J. Thierry. Quantifizierung der Beziehungen Gehäusemorphologie-ablagerungsmilieu sowie Gehäusebau-ablagerungsmilieu mit hilfe von Fourier-Analysen und TPS-gittern am beispiel der Seeigelart *Collyrites analis*. **Echinodermen Symposium, September 2001, Greifswald, (Allemagne) - Poster.**

Martin-Garin, B., B. David, and J. Thierry. Quantification des relations entre morphologie du test et paléoenvironnements sédimentaires chez l'oursin *Collyrites analis*. (Echinoidea, Disasteroidea) du Bathonien (Jurassique du bassin de Paris (France): applications des transformées de Fourier et des grilles de déformation "TPS". **"6th European Conference on Echinoderms", 3-7 Septembre 2001, Banyuls-sur-Mer, (France) - Poster.**

Moyne, S., J. Thierry, and D. Marchand. Disparité morphologique et diversité taxinomique chez le genre *Nucleolites* (Echinoidea; Cassiduloidea) du Bajocien-Oxfordien du Bassin de Paris: morphologie et architecture du test, modalités de croissance et tendances évolutives, implications biostratigraphiques et paléoécologiques. **"6th European Conference on Echinoderms", 3-7 Septembre 2001, Banyuls-sur-Mer, (France) - Oral presentation.**

Piepenburg, D. Composition, distribution and abundance of epibenthic megafauna off King George Island. **Symposium on the "Ecology of the Antarctic Sea Ice Zone (EASIZ)", Bremerhaven, June 23, 1999.**

Thandar, A.S., and V. Rajpal. 1998. Some thoughts about the "supergen" *Thyone* Jaeger (Echinodermata:

INDONESIA

Glenn, K.C., and G. O'Brien. 2000. Natural hydrocarbon seepage: a control on the distribution of carbonate reefs and build-ups in and around the Marine Reserves of Cartier Islet and Ashmore Reef, North-West Shelf, Australia. **9 International Coral Reef Symposium Indonesia 2000.**

Jeyabaskaran, R. and K. Venkataraman. 2000. Degradation of Coral diversity and it's causes in Gulf of Mannar (Southeast coast of India). **Paper presented at IX International Coral Reef Symposium, Bali, Indonesia, 28 October 2000.**

Juinio-Meñez, M.A., R.M. Magsino, and E.T. Yu. Genetic structure of *Linckia laevigata* and *Tridacna crocea* populations in the Palawan shelf and shoal reefs. **Paper presented at the 9th International Coral Reef Symposium, Bali, Indonesia, October 2000.**

Magsino, R.M., R.G. Ravago, and M.A. Juinio-Meñez. Genetic relationship of the color morphs of the coral reef starfish *Linckia laevigata* in the Kalayaan Islands Group (KIG), western Philippines. **Paper presented at the 9th International Coral Reef Symposium, Bali, Indonesia, October 2000.**

INDIA

James, D.B. Presented a paper on collection, preservation and identification of echinoderms. **Training Course on Collection, Preservation and Identification of Zoological Specimens at Southern Regional Station, Zoological Survey of India, Madras on 14-03-2001.**

Jeyabaskaran, R. and S. Ajmal Khan. 1996. Studies on Biodiversity and Man made perturbations in Coral Reef Ecosystem of Keelakkarai coast, Gulf of Mannar. **Paper presented in Coastal Zone Management Symposium held at Berhampur University, Orissa.**

Jeyabaskaran, R., and S. Ajmal Khan. 1996. Regeneration of coral reefs in artificial substrates of Tuticorin harbour. **Paper presented at National Symposium on Recent Advances in Biological Oceanography, NIO, Goa, India during May 27 to 30, 1996.**

Jeyabaskaran, R. 1996. Monograph on Invertebrates and vertebrates in Gulf of Mannar. **Ministry of Environment and Forests (INDIA) Project report by R. Jeyabaskaran et al.**

MEXICO

Nepote, A.C. 2001. Caracterizacion de la Infauna en dos localidades del Alto Golfo de California. **VIII Congreso de la Asociacion de Investigadores del Mar de Cortes, A.C. II International Simposium about the Sea of Cortes.**

Villalobos, F. Benitez. Los equinodermos de la zona intermareal de Santa Elena, Oaxaca, México. **XIV National Congress of Zoology, November 1997.**

Villalobos, F. Benitez. Comunidad de equinodermos asociada a la zona arrecifal Puerto Escondido -Bahías de Huatulco, Oaxaca. **XII National Congress of Oceanography, May 2000.**

Villalobos, F. Benitez. Comparación de la comunidad de equinodermos asociada a arrecife en dos localidades de las Bahías de Huatulco, Oaxaca, México. **1st. National Congress of Reefs.**

NEW ZEALAND

Messing, C.G. 2000. Just what is *Atelecrinus*?: Unique morphology in a living bathyal feather star (Echinodermata: Crinoidea). **Tenth International Echinoderm Conference, Univ. Otago, Dunedin, N.Z. Jan.-Feb. 2000. p.72.**

Messing, C.G., J. David, T.K. Baumiller, M. Roux, and N. Ameziane. 2000. Stalk growth rates of Isocrinidae: a summary of a decade of in situ experiments. **Tenth International Echinoderm Conference, Univ. Otago, Dunedin, N.Z. Jan.-Feb. 2000. p.73.**

Morgan, A. 2000. The importance of exposure gradients and reef morphology in assessing the habitat characteristics of the temperate sea cucumber *Stichopus mollis*. Oral presentation. **New Zealand Marine Science Society Conference, 30th Aug. to 2nd Sept. 2000, Hamilton, University of Waikato, New Zealand.**

Natasen-Moodley, M., A.S. Thandar, and M.A. Gregory. (In press). The potential role of the holothurian *Pseudocnella sykion* as a bioindicator species of heavy metals, based on energy dispersive x-ray analysis (EDX). **Proc. 10th International Echinoderm Conference, Dunedin, New Zealand, January-February 2000.**

Thandar, A.S., and C. Ahearn. (In press). Correlation between the calcareous rings and zoogeographic distributions of *Thyone* species (Echinodermata: Holothuroidea) with the proposed management of the genus. **Proc. 10th International Echinoderm Conference, Dunedin, New Zealand, January- February 2000.**

PAKISTAN

Tahera, Qaseem. Diversity in the commercially important species of Holothuroidea and Echinoidea; (Echinodermata) of northern Arabian Sea (Pakistan). (Poster). **National Symposium on Arabian Sea as a Resource of Biological Diversity. 18-20 Sept. 2000. Pakistan.**

Tahera, Qaseem. Paper presented on Echinoderm Fisheries; A Review. **Symposium on Untapped Fisheries Resources of Pakistan. 23-25 Feb, 2001. Karachi, Pakistan.**

PHILIPPINES

Juinio-Meñez, M.A., R.M. Magsino, and E.T. Yu. Genetic structure of *Linckia laevigata* and *Tridacna crocea* populations in the Palawan shelf and shoal reefs. **Paper presented at the 4th International Conference on the Marine Biology of the South China Sea, Manila, Philippines, October 1999.**

Juinio-Meñez, M.A., R.M. Magsino, and E.T. Yu. Genetic structure of *Linckia laevigata* and *Tridacna crocea* populations in the Palawan shelf and shoal reefs. **Paper presented at the 3rd Asia-Pacific Marine Biotechnology Conference, Manila, Philippines, November 1999.**

Magsino, R.M., M.A. Juinio-Meñez, and R.G. Ravago. Development and application of molecular genetic markers for population structure analysis of the coral reef starfish *Linckia laevigata* (Linn). **Paper presented at the 5th National Symposium in Marine Science, Manila, Philippines, October 1999.**

RUSSIA

Alimov, A.F., I.S. Smirnov, A.Y. Ryss, M.B. Dianov, A.L. Lobanov, and A.A. Golikov. Modern biological electronic publications: Collections, identification systems and databases. *In: Information Technology in Biodiversity Research. Abstracts of the 2nd International Symposium, St. Petersburg, 2001.*

SOUTH AMERICA

Bustos E., S.Olave, J. Lawrence, P.Cárcamo, R. Olate, and G. Vidal. Efecto del tipo de alimento sobre al ingestión, eficiencia de absorción y rendimiento gonádico en el erizo (*Loxechinus albus*). **XX Congreso Ciencias del Mar, mayo del 2000, Concepción Chile.**

Manso, C.L.C., and O.F.S. Alves. 1999. Equinodermos do infralitoral da Baía de Todos os Santos (BTS, BA) Brasil. Resultados preliminares. **In: XII Encontro de Zoologia do Nordeste. Feira de Santana. Universidade Estadual de Feira de Santana, Bahia, Brazil. v. 1., p.353.**

Manso, C.L.C. 1999. Equinóides do Albiano de Sergipe: notas preliminares. **In: XVI Congresso Brasileiro de Paleontologia. Cidade do Crato, Ceará, Brazil, v. 1:63.**

Manso, C.L.C., and P. Bengtson. 2000. Paleocology of Albian echinoids from Sergipe, Northeastern Brazil **In: 31st International Geological Congress, CD-ROM .**

Manso, C.L.C., and W. Souza-Lima. 2000. Ocorrência de *Pygorhynchus colombianus* (Cooke, 1955) e *Pseudholaster altiusculus* (White, 1887) na Formação Riachuelo, bacia de Sergipe, Brasil. **In: Reunião Anual Regional da Sociedade Brasileira de Paleontologia, Aracaju, Sergipe, Brasil.**

Manso, C.L.C. 2001. Paleogeografia dos equinóides (Echinodermata) do Aptiano-Albiano do nordeste do Brasil. **In: XVII Congresso Brasileiro de Paleontologia, Rio Branco, Acre, Brazil. Anais, v. 1:104.**

Mendes, C.L.T., Tavares, C.M. & Campos-Creasey, L.S. Comportamiento Alimentario de *Echinometra lucunter* (Echinodermata: Echinoidea). **La Comunidad de Macroalgas Bentónicas en Cabo Frio (Rio de Janeiro, Brasil).**

Mendes, C.L.T., Tavares, C.M. & Campos-Creasey, L.S. Comportamiento Alimentario de *Echinometra lucunter* (Echinodermata: Echinoidea). **IX COLACMAR, San Andrés Isla, Colombia. September 18, 2001.**

UNITED STATES

Carroll, D.J. Proteolytic activation of starfish eggs. **1994 Developmental Biology of the Sea Urchin Meeting, Woods Hole, MA.**

Carroll, D.J. PLCg plays a role in the initiation of the fertilization calcium wave in starfish eggs. **1997 Workshop on the Fertilization Calcium Wave, Fallen Leaf Lake, CA.**

Carroll, D.J. Initiation of calcium release at fertilization by phospholipase Cg. **1997 Gordon Research Conference on Fertilization and Activation of Development, Holderness, NH.**

Carroll, D.J. Identification of PLCg-dependent and independent events during fertilization of sea urchin eggs. **1998 Developmental Biology, West Coast Meeting, Bodega Bay, CA.**

Carroll, D.J. Identification of PLCg-dependent and independent events during fertilization of sea urchin eggs. **1998 American Society of Cell Biology Annual Meeting, San Francisco, CA.**

Deheyn, D.D., and Latz, M.I. 2000. Brittlestars as metazoan bioindicators of heavy metal contamination. UC Toxics Symposium, abstract book: 16. **UC TSR & TP Annual Research Symposium, San Diego, USA, April 2000.**

Deheyn, D.D., and Latz, M.I. 2000. Heavy metals effects on luminescence of bacteria and isolated brittlestar photocytes. *Luminescence* 15: 204. **Intl Symposium on Bioluminescence & Chemiluminescence, Pacific Grove, USA, Sept. 2000.**

Donovan, S.K., D.A.T. Harper, R.K. Pickerill, R.W. Portell, and T.A. Jackson. 2000. How deep? Determination of depth of deposition, with an example from the Cenozoic of the Lesser Antilles. **Geological Society of America Annual Meeting, Reno, Nevada, 13-16 November. Geological Society of America Abstracts with Programs, 32(7): A-197.**

Lambert, P. 2000. Recent additions to the holothuroid fauna of the northeastern Pacific Ocean (Echinodermata). **Presented at the 81st Annual Meeting of the Western Society of Naturalists. Portland, Oregon. December 27-30, 2000.**

Otero, M. del Mar. Energy partitioning in the echinoid *Psammechinus miliaris* fed standardised artificial diets of plant or animal origin. **Aquaculture 2001. World Aquaculture Society, Orlando, January 21-25, 2001.**

Piepenburg, D. Benthic investigations on the relation between shelves and basins in the eastern Arctic. **2nd Biennial Shelf-Basin Interactions International Pan-Arctic Meeting: "Shelf-Basin Studies and Global Change"**, Callaway Gardens/Atlanta (USA), November 8, 2000.

Portell, R.W., and C.W. Oyen. 2001. Cenozoic Asteroids and Ophiuroids from Florida: An understudied fossil component. **Geol. Soc. Am. Abstracts with Programs**, 33(2):A-73.

Schuetz, A.W. Extrafollicular mediation of oocyte maturation by radial nerve gonads tropin in starfish ovary. **Society for the Study of Reproduction (Annual Meeting)**, University of Wisconsin, Madison, Wisconsin, July 15-18, 2000.



ECHINODERMS PAPERS PRESENTED AT MEETINGS AND CONFERENCES (By Conference)

9th International Conference on Invertebrate Reproduction & Development Rhodes University, Grahamstown, South Africa on 15-20 July 2001

<http://www.rhodes.ac.za/conferences/icird2001/>

Convener
Professor Alan Hodgson
Dept. Zoology & Entomology
Rhodes University, Grahamstown, South Africa

Rubilar Panasiuk, C.T., Diaz de Vivar, M.E. & Pastor de Ward, C.T. - Reproductive cycle of *Allostichaster inaequalis* (Echinodermata: Asteroidea) from the Patagonian coast.

Lima, R.P.N., Barcellos, C.F., Ventura, C.R.R. & Campos-Creasey, L.S. - Reproductive cycle of the sea cucumber *Isostichopus badionotus* (Echinodermata) from Baía do Ilha Grande, Rio de Janeiro, Brazil.

Moreno, C. & Guisado, C. - Reproductive aspects of *Athyonidium chilensis* (Semper, 1860) (Echinodermata: Holothuroidea) in the IV region of Chile.

C. Conand, University of Reunion, Reunion, France. Comparison of reproductive strategies, sexual and asexual, in *Stichopus chloronotus* (Holothuroidea) populations from the Great Barrier reef and Reunion Island.
Paper

J-F Hamel, College of the Marshall Islands, Marshall Islands. In vivo observation of ovulation and further

oocyte maturation in spawning holothurians.

M. Hoshi, Keio University, Japan. Species-specific induction of the acrosome reaction in starfish.

S.D. Kashenko, Institute of Marine Biology, Russian Academy of Sciences, Russia. Reactions of the sea cucumber *Apostichopus japonicus* larvae in different development stages after sharp desalination of surface water.

R.P.N.L. Lima, Universidade Santa Ursula, Brazil. Reproductive cycle of the sea cucumber *Isostichopus badiionotus* (Echinodermata) from Baia de Ilha Grande, Rio de Janeiro, Brazil.

A. Mercier, College of the Marshall Islands, Republic of the Marshall Islands. Coelomic fluid as mediator of spawning induction in tropical holothurians. Poster

C. Moreno, Universidad Catolica del Norte, Chile. Reproductive aspects of *Athyonidium chilensis* (Semper, 1860) (Echinodermata: Holothuroidea) in the IV region of Chile. Poster

A. Rahman, Bangladesh Fisheries Research Institute, Bangladesh Experimental hybridization and gametic incompatibilities between two genetically divergent species of tropical sea urchins, *Echinometra mathaei* and *E. oblonga*. Paper

C.T. Rubilar, Universidad Nacional de la Paragonia San Juan Bosco. Reproductive cycle of *Allostichaster innaequalis* (Echinodermata: Asteroidea) from the Patagonian coast. Poster

M.A. Sewell, University of Auckland, New Zealand. Utilization of protein and lipid during larval development in two Antarctic echinoderms. Paper

J.S. Pearse, University of California, USA. Photoperiodic regulation of gametogenesis in the antarctic sea star *Odonaster validus* Koehler: Evidence for a circannual rhythm modulated by light. Paper

M. Whitaker, University of Newcastle, U.K. Nitric oxide and the ryanodine receptor pathway at fertilization in sea urchin eggs. Paper



**FOURTH NORTH AMERICAN ECHINODERM CONFERENCE, DARLING MARINE CENTER,
UNIVERSITY OF MAINE, WALPOLE, MAINE, AUGUST 22-26, 2001.**

THE ORGANIZING COMMITTEE

Emma Creaser, Unity College in Maine

Kevin Eckelbarger, Director, Darling Marine Center

Isidro Bosch, SUNY Geneseo

John M. Lawrence, University of South Florida

ORAL PRESENTATIONS

- Dearborn, J.H. Echinoderms of the Gulf of Maine: occurrence and exploitation. A6
- Tyler, P.A., and C.M. Young. Echinoderms as alien invaders. A6
- Pearse, J. Antarctic sea stars and sea urchins: How they changed major 20th century paradigms in marine biology. A7
- Christensen, A.B. Who do small brittlestars have hemoglobin? A8
- Kennedy, E.J., J.D. Castell, S.M.C. Robinson, G.J. Parsons, T.J. Blair, and E. Gonzalez-Durant. Effect of dietary lipids on fatty acid composition and metabolism in juvenile green sea urchins (*Strongylocentrotus droebachiensis*). A8
- Cobb, J., and J.M. Lawrence. Gonad and gut repletion indices of the co-occurring sea urchins *Arbacia punctulata* and *Lytechinus variegatus* on the central Florida gulf shelf. A9
- Wallace, B.D., A.W. Cunningham, H.S. Hammer, S.A. Watts, J.M. Lawrence, and A.L. Lawrence. The effect of protein on gonad development in small sea urchins (*Lytechinus variegatus*). A9
- Scheibling, R., and T. Gibson. Suspension feeding in the ophiuroid *Ophiocoma scolopendrina*: optimal foraging or just a lot of arm waving. A10
- Pearce, C.M. Effect of urchin size and diet on gonad yield and quality in the green sea urchin (*Strongylocentrotus droebachiensis*). A10
- Robinson, S.M.C., and L. Peters. The efficiency of prepared diets for growing the green sea urchin (*Strongylocentrotus droebachiensis*). A11
- Vadas Sr., R.L., B.D. Smith, B. Beal, and T. Dowling. Sympatric growth morphs and size bimodality in *Strongylocentrotus droebachiensis*. A11
- Ellers, O. Dimensional similarity and the evolution and growth of shape in sea urchins. A12
- Shick, J.M., and W.C. Dunlap. Uptake, accumulation, bioconversion, and physiological functions of mycosporine-like amino acids (MAAs) in tropical holothuroids. A12
- Pinkard, D.R., G.L. Eckert, D.C. Reed, and S.C. Schroeter. Seasonal variation in density and body composition of the commercially important sea cucumber, *Parastichopus parvimensis*. A13
- Shpigel, M., S.C. McBride, and I. Lupatsch. Propagation of the European sea urchin (*Paracentrotus lividus*) in an environmentally friendly, land based facility. A13
- Spain, D.D. Peristaltic locomotion and habitat in holothuroids. A14

- Pomory, C.M. Photoperiod effects on gonad production in the red sea urchin *Strongylocentrotus franciscanus*. A14
- Seward, L.C.N., R.L. Vadas, B.F. Beal, T. Dowling, and D.W. Townsend. Patterns of spawning of the green sea urchin, *Strongylocentrotus droebachiensis*, in Central Maine over a three-year period. A14
- Adams, N.L., and K.R. Foltz. A molecular approach to understanding UV-induced mitotic delay in sea urchin embryos. A15
- Allen, J.D. Testing the costs of small egg size in Echinoderms. A15
- Heyland, A., A. Reitzel, and J. Hodin. Thyroxine induces facultative feeding in an obligatorily feeding sand dollar larva. A16
- Bosch, I., M. Komatsu, C. Murakami, and D. Krakowski. Spawning and development of the sea star *Psilaster charcoti* during the springtime depletion of ozone in Antarctica. A16
- Meidel, S., and P. Yund. Fertilization dynamics in a temperate sea urchin, *Strongylocentrotus droebachiensis*. A17
- Minsuk, S.B., and R.A. Raff. Inductive signals in rudiment development in the direct-developing sea urchin *Heliocidaris erythrogramma*. A17
- Reitzel, A., and A. Heyland. Morphological plasticity in echinoplutei with different degrees of maternal investment. A18
- Schiopu, D., and S. George. Population differences in reproductive output and larval development for the sand dollar *Mellita isometra*. A18
- Harris, L.G., and P.A. Madigan. Juvenile growth in the green sea urchin: addressing a major bottleneck to successful aquaculture. A18
- Cameron, C. Molecular phylogenetic evidence suggests that the ancestral echinoderm may have closely resembled a mobile, worm-like enteropneust with filter feeding gill slits. A19
- Fontanella, F., and T.S. Hopkins. Preliminary phylogeny of seven morphological variants of *Echinaster (Othilia)* from the Gulf of Mexico and Caribbean. A19
- Kroh, A. Taxonomy and evolution of the family Scutellidae (Echinoidea: Clypeasteroidea) during the Oligo-Miocene. A20
- Mah, C., and D.B. Blake. Phylogenetic analysis of the Goniasteridae (Asteroidea): *Calliaster* and kin—a first step. A20
- Mooi, R., A. Devitt, and M. Wittman. The small, the large, and the weird: Phylogenetics of the laganine sand dollars. A21

Pizer, M., G. Wray, and J. Balhoff. Echinoderm origins: A review of theories and predictions. A21

Wilson, M.M., and R.L. Turner. Genetic diversity in the brooding sea cucumber *Synaptula hydriformis* using randomly amplified polymorphic DNA (RAPD) analysis: implication for method of fertilization. A22

Mooi, R., and M. Telford. Advancing history: Phylogenetics of tooth promotion in echinoid lanterns. A22

Pawson, D.L. Mirror-image abnormalities (situs inversus viscerum) in echinoderms. A23

Stepanov, Vadim G., V.E. GaidaeV, and V.S. Levin. Quantitative computer methods for the analysis of the spicular shape in the holothurian *Cucumaria* spp. A23

De Moor, S., J.H. Waite, M. Jangoux, and P. Flammang. Adhesive proteins from the Cuvierian tubules of the holothuroid *Holothuria forskali*. A23

Springer, E.A., and R.L. Turner. Population biology of the fissiparous brittlestar *Ophiocomella ophiactoides* (H.L. Clark) in sponge and algal habitats. A24

Talbot, T.D., and J.M. Lawrence. The effect of salinity on respiration, excretion, regeneration, and production in the brittlestar *Ophiophragmus filigraneus*. A24

McAlister, J.S., and S.E. Stancyk. Effects of variable water motion on regeneration of *Hemipholis elongata* (Say, 1825) (Echinodermata: Ophiuroidea). A25

Stickle, W.B. On the relationship between the parasitic ciliate *Orchitophrya stellarum* and its asteriid hosts. A25

Turner, R.L., and B.D. Graham. New records of echinoderms from the Gulf of Mexico. A26

POSTERS

Hodin, J., and A. Heyland. Thyroid hormones, phenotypic plasticity and life history evolution in three classes of echinoderms. A27

Eckert, G.L., D.R. Pinkard, D.C. Reed, and S.C. Schroeter. Larval development, settlement, and juvenile growth of the sea cucumber, *Parastichopus parvimensis*. A27

Santos, R., D. Haesaerts, M. Jangoux, and P. Flammang. Comparative histological and immunohistochemical study of asteroid tube foot adhesion. A28

Fontanella, F.M., and T.S. Hopkins. New insights into the functional role of the glassy tubercles and inter-tubercular pores in seastar *Echinaster (Othilia)*. A28

Hopkins, T.S., F.M. Fontanella, and R. Ventura. Morphological variation in three South Atlantic sea stars of the subgenus *Othilia* (Genus *Echinaster*; Family Echinasteridae; Order Spinulosida). A29

Hotchkiss, F.H.C., and P.H. von Bitter. Diminutive ophiuroids of modern aspect from the Lower Carboniferous

of Nova Scotia, Canada. A29

Leland, A. Reestablishing the green sea urchin in overharvested areas. A30

Lawrence, J.M., S.C. McBride, L.R. Plank, and M. Sphigel. Tolerance to ammonia of the sea urchins *Strongylocentrotus franciscanus*, *Arbacia punctulata*, *Lytechinus variegatus*, and *Paracentrotus lividus*. A30

Harshany, D.J., J.M. Lawrence, and S.C. Edwards. Production in the starfish *Luidia clathrata* measured directly and calculated from the specific dynamic action. A31

Lawrence, J.M., and C.M. Pomory. Allometric growth of the asymmetrical pyramids of the Aristotle's lantern of the sand dollars *Mellita tenuis* and *Dendraster excentricus*. A31

Moody, M., and C.W. Walker. Photoperiod, "Eyes" and gametogenesis in the green sea urchin. A31

Johnson, K.B., and D.L. Pawson. Weird science: a spatangoid larva (Class Echinoidea, Order Spatangoida) metamorphoses into a "typical" regular echinoid (Order Echinoida). A32

Pawson, D.L., and A.M. Kerr. Chitin in echinoderms? Tentacle sheaths in the deep-sea holothurian *Ceraplectana trachyderma* (Holothuroidea: Molpadiida). A32

Pawson, D.L., and R.J. Mooi. How many species of five-holed sand dollars live in the Western Atlantic? A33

Thandar, A.S., N. Seoraj, and G.K. Moodley. Evidence of feeding and digestion in eviscerated specimens of an aspidochirotid holothroid. A33

Vavrinec, J., and D. McNaught. Alternate stable states and the management of the green sea urchin *Strongylocentrotus droebachiensis* in Maine. A33

Worrell, R.L., S.A. Watts, and B. Gower. Glucose levels in the coelomic fluid vary with diet in the sea urchin *Lytechinus variegatus*. A34

Hawk, B., and S.B. George. Population structure of the sand dollar *Mellita isometra*: Occurrence of the commensal crab *Dissodactylus mellitae*. A34



Papers presented at the Annual Meeting of the Society of Integrative and Comparative Biology, American Zoologist 40(6). 2000.

(Communicated by John Lawrence)

Boettger, S.A., and J.B. McClintock. The effects of organic and inorganic phosphate on muscle contraction and

- acetyl cholinesterase activity of the nearshore echinoid *Lytechinus variegatus*. P. 947.
- Cowart, J.D. Palatability of *Pteraster tesselatus* (Echinodermata: Asteroidea) eggs. P. 983.
- Crawford, B.J., T. Pang, and S.S. Campbell. Development of the hyaline layer of the asteroid *Pisaster ochraceus*. P. 983.
- Hammer, H.S., S.A. Watts, J.M. Lawrence, A.L. Lawrence, J.B. McClintock. The effect of dietary protein concentration on gonad composition and gametic condition in the sea urchin *Lytechinus variegatus*. P. 1042.
- Heyland, A., and J. Hoden. Endogenous thyroxine production in sand dollar larvae and its implication for the evolutionary loss of larval feeding. P. 1054.
- Madigan, P.A., K.A. Waters, and L.G. Harris. Juvenile growth variation in the green sea urchin, *Strongylocentrotus droebachiensis*: possible roles for larval history, behavior and genetics. P. 1113.
- McEdward, L.R., and B.G. Miner. Diversity and evolution of larval patterns in ophiuroid echinoderms. P. 1124.
- McGinn, N.A., and C.W. Walker. Vitellogenesis in the green sea urchin, *Strongylocentrotus droebachiensis*. P. 1124.
- McGovern, T.M. Sex ratio bias in the clonal brittle star *Ophiactis savignyi*. P. 1125.
- Mead, K.S. The mechanisms of turbulent action: how does hydrodynamic shear stress affect fertilization and development in sea urchins? P. 1127.
- Miner, B.G., and L.R. McEdward. Diversity and evolution of larval patterns in holothuroid echinoderms. P. 1134.
- Pizer, M., and G.A. Wray. The evolution and development of left-right asymmetry in echinoderms. P. 1173.
- Roig-Lopez, J.L., P. Santiago, L. Nieves, B. Jimenez, and J.E. Garcia-Ararras. Differential expression of actin isoforms during intestinal regeneration in the sea cucumber *Holothuria glabberima*. P. 1191.
- Thomas, F.I.M., and T.F. Bolton. Mechanical forces imposed on echinoid eggs during spawning: mitigation of force by fibrous networks within egg extracellular layers. P. 1132.
- Wallace, B.D., H.S. Hammer, S.A. Watts, J.M. Lawrence, and A.L. Lawrence. The effects of dietary protein concentration on growth of juveniles of the sea urchin *Lytechinus variegatus*. P. 1248.
- Zigler, K.S. The sea urchin sperm protein bindin is conserved throughout the echinoids. P. 1272.

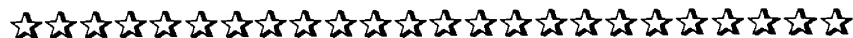


Papers presented at the meeting of the World Aquaculture Society, Lake Buena Vista, Florida. 21-25 January, 2001

(Communicated by J.M. Lawrence)

- Bridger, C.J., R.G. Hooper, and T.J. McKeeva. Commercialization of sea urchin roe enhancement: bottlenecks to future expansion.
- Devin, M.G., and C.W. Walker. The effect of light and prepared diet on roe quality in the green sea urchin *Strongylocentrotus droebachiensis*.
- George, S., J. Lawrence, and A. Lawrence. The effect of carotenoids on egg production and larval development of the edible sea urchin *Lytechinus variegatus*: the role of adult and larval diets.
- Hammer, H.S., S.A. Watts, J.M. Lawrence, A.L. Lawrence, and J.B. McClintock. The effects of dietary protein on the production and proximate composition of gonads in the edible sea urchin *Lytechinus variegatus*.
- Lawrence, J.M., S. George, and A.L. Lawrence. Use of a prepared feed for juvenile sea urchins *Lytechinus variegatus*.
- Lawrence, J.M., Plank, L.R., and A.L. Lawrence. The effect of dietary carotenoids on gonad production and carotenoid profiles in the sea urchin *Lytechinus variegatus*.
- McBride, S.C. Sea urchin aquaculture and current research.
- McBride, S.C., M. Shpigel, I. Lupatsch, J.M. Lawrence, and A.L. Lawrence. The effect of energy and protein supply on gonad development of European sea urchins *Paracentrotus lividus* fed algal and prepared diets.
- Pearce, C.M. Effect of prepared food ration on gonad quantity and quality of adult green sea urchins *Strongylocentrotus droebachiensis* (Echinodermata: Echinoidea).
- Wallace, B.D., H.S. Hammer, S.A. Watts, J.M. Lawrence, and A.L. Lawrence. The effects of dietary protein on growth of juvenile sea urchins.
- Watts, S.A., M.S. Vikery, M. Becerro, B.D. Wallace, and J.M. Lawrence. Problems associated with settlement, metamorphosis and post-metamorphic growth of *Lytechinus variegatus* in culture.
- Alabi, A. Problems and solutions in the mass production of juvenile *Strongylocentrotus franciscanus* and *S. droebachiensis* in British Columbia, Canada.
- Madigan, P.A., K.A. Waters, C.T. Williams, and L.G. Harris. Juvenile growth variation in the green sea urchin, *Strongylocentrotus droebachiensis*: possible roles for larval history, behavior and genetics.

- Barker, M. A pilot study of stock enhancement of populations of the New Zealand sea urchin *Evechinus chloroticus* by juvenile reseeding.
- Barker, M. A method for the mass rearing of the New Zealand sea urchin *Evechinus chloroticus*.
- Sakai, Y. Stock enhancement of short-spined sea urchin *Strongylocentrotus intermedius* and its effect on *Laminaria* fishery in eastern Hokkaido, Japan.
- Hagen, N.T., and C. Solbert. Quality control of sea urchin gonads using NIR-spectroscopy.
- Devin, M.G., and C.W. Walker. The effect of light and prepared diet on roe quality in the green sea urchin *Strongylocentrotus droebachiensis*.
- Walker, C., L.H. Harrington, N.A. McGinn, M.P. Lesser, and M. Devin. Normal and altered gametogenesis in the green sea urchin: implications for aquaculture.
- Kelly, M.S., G. McLaughlin, and A. Morgan. Use of carotenoid rich microalgae in artificial diets to enhance gonad colour and growth in the edible echinoid *Psammechinus miliaris*.
- Otero Villanueva, M. M., and M.S. Kelly. Energy partitioning in the echinoid *Psammechinus miliaris* fed standardized artificial diets of plant or animal origin.



6TH ECE SIXTH EUROPEAN CONFERENCE ON ECHINODERMS
 3-7 SEPTEMBER 2001
 BANYULS-SUR-MER, FRANCE

(Communicated by Kerry Howell)

Scientific Committee of the 6th European Conference on Echinoderms Scientific Committee of the 6th European Conference on Echinoderms Banyuls-sur-mer (3-7 September 2001)

Prof. Maria Daniela Candia Carnevali
 Università degli Studi di Milano
 Dipartimento di Biologia
 Milan, Italy
 cndmdn@imiucca.csi.unimi.it

Prof. Michael Thorndyke
 University of London
 Egham, United Kingdom
 m.thorndyke@rhbnc.ac.uk

Dr. Nils Hagen
Department of Fisheries and Natural Science
Bodo College
Bodo, Norway
nils.hagen@hibo.no

Dr. Jean-Pierre Feral (chairperson)
Observatoire Oceanologique
Banyuls-sur-mer, France
feral@obs-banyuls.fr

Dr. Bruno David
Université de Bourgogne
Dijon, France
bruno.david@u-bourgogne.fr

Prof. Michel Jangoux
Universite Libre de Bruxelles
Brussels, Belgium
mjangoux@ulb.ac.be

Prof. Thomas Heinzeller
Ludwig Maximilians Universität
Munich, Germany
heinzeller@med.uni-muenchen.de

Dr. Jaume Gallemi
Museu de Geologia
Barcelona, Spain
jgallemi@cc.uab.es

<http://www.obs-banyuls.fr/web/departs/feral/biolpop/Accueil1.htm>>

PAPERS PRESENTED AT THE 6TH ECE

EVOLUTION, BIODIVERSITY AND ZOOGEOGRAPHY

Biodiversity and zoogeography (fossil and extant)

Baumiller, T.K. Experimental taphonomy of crinoids and its impact on paleontological interpretations. p.21

Neumann, C. Taphonomy and population structure of fossil and recent spatangoid echinoids. p.38

Eble, G.J. The macroevolution of size in echinoids. p.27

Lefebvre, B., Eble, G.J. & David, B. Morphological disparity in stylophoran echinoderms. p.36

Moyne, S., Thierry, J. & Marchand, D. Disparity and biodiversity of Nucleolites (Cassiduloidea) from the Middle-Late Jurassic of the Paris basin: taxonomic implications. p.37

Oji, T. Are Permian and Triassic articulate crinoids similar or different? p.39

Kroh, A. Palaeoecology and biogeography of a Danian echinoid fauna of the Bruderndorf Fm. (NE Austria). p.36

Jagt, J.W.M., Ishida, Y., Mizuno, I., Fukutomi, M. & Yasui, T. Notes on Cretaceous ophiuroids from Japan. p.34

Fontanella, F.M. & Hopkins, T.S. Preliminary phylogeny of six morphological variants of *Echinaster* (*Othilia*) from the Gulf of Mexico. p.29

O'Hara, T. & Stöhr, S. Deep water ophiuroids of New Caledonia. p.38

Campos-Creasey, L.S., Guille, A. & Paterson, G.: Deep-sea ophiuroids from the southeastern Brazilian slope. p.23

Samyn, Y. & Thandar, A.S. Zoogeography of the shallow-water echinoderm fauna of southern Africa. Lessons from KwaZulu-Natal. p.42

Functional morphology (fossil and extant)

Brosseau, O. Comparison of two genera of stalked crinoids: *Democrinus* and *Rhizocrinus* (Crinoidea; Bourgueticrinae). p.22

Améziane, N. & Roux, M. Problems in ontogenetic analysis as related to phylogeny: the genus *Guillecrinus* (Echinodermata, Crinoidea) as an example. p.20

Franzén, C.: Arm enrolment in the Silurian crinoid *Crotalocrinites*. p.30

Irimura, S. & Fujita, T. Interspecific variation of vertebral ossicle morphology in Ophiuroidea. p.33

Saucede, T., Mooi, R. & David, B. The strange apical system of the genus *Pourtalesia* (Holasteroidea, Echinoidea): ontogeny and evolution. p.42

Wilkie, I.C., Candia Carnevali, M.D., McKew, M. & Bonasoro, F. A non-mutable collagenous structure? Organisation and physiology of the compass-rotular ligament of the echinoid lantern. p.43

Physiology and behaviour

Candia Carnevali, M.D., Bonasoro, F., Ferreri, P. & Galassi, S. Regenerative potential and effects of exposure to pseudo-estrogenic contaminants (4-nonylphenol) in the crinoid *Antedon mediterranea*. p.23

Ferreri, P., Candia Carnevali, M.D., Bonasoro, F. & Wilkie, I.C. Structure and mechanical properties of arm and cirral autotomy planes in the crinoid *Antedon mediterranea*. p.29

Thorndyke, M.C., Patruno M., Dewael, Y., & Mallefet, J. Regeneration in the ophiuroid *Amphiura filiformis*: Physiology and cell biology. p.43

Dewael, Y. & Mallefet, J. Cholinergic control of the luminescence of *Amphiura filiformis* (Echinodermata). p.25

Mallefet, J. & O'Hara, T. *Ophionereis schayeri* (Müller & Troschel, 1849), a luminous ophiuroid species. p.37

- Howell, K., Pond, D., Billett, D.S.M. & Tyler, P.A. Investigating the diet of deep-sea asteroids using fatty acid analysis. p.33
- Dubois, P., Feldstein, T., Louillet, C. & Claeys, F. Effects of metals on echinoderm skeletogenesis. p.26
- Doignon, G., Jangoux, M., Féral, J.-P. & Eeckhaut, I. The endosymbiotic turbellarians infesting *Holothuria tubulosa* at Banyuls-sur-Mer. p.26
- Haesaerts, D., Jangoux, M. & Flammang, P. Adhesive organs of the brachiolaria larvae of *Asterias rubens* (Asteroidea). p.31
- Otero, M. del Mar & Kelly, M. Feeding behaviour of *Psammechinus miliaris*, a dominant grazer of intertidal communities. p.39
- David, B., Magniez, F. & Villier, L. Conveying behavior of the deep sea pourtalesiid *Cystocrepis setigera* in the Peru trench. p.25
- Hagen, N. Electric stimulation as a method for inducing green sea urchins to spawn. p.32

Ecology and reproductive cycle

- Böttger, S.A. & McClintock, J.B. The effects of inorganic and organic phosphate exposure on aspects of reproduction in the common sea urchin *Lytechinus variegatus*. p.21
- Gaymer, C.F., Himmelman, J.H. & Johnson, L.E. Effect of intra- and interspecific interactions on the feeding behavior of two subtidal seastars in the northern Gulf of St. Lawrence, eastern Canada. p.31
- Gago, J., Range, P. & Luis O.J. Growth, reproductive biology and habitat selection of the sea urchin *Paracentrotus lividus*, in the coastal waters of Cascais, Portugal. p.30
- Carvalho, A.L.P.S. & Ventura, C.R.R. Reproductive cycle of *Asterina stellifera* (Möbius) (Echinodermata: Asteroidea) from two distinct habitats in Cabo Frio region, Brazil. p.24
- Rebours, C., Billard, C. & Cosson, J. Relationship between feeding and development in the larvae of sea urchins *Paracentrotus lividus*. p.41
- Fourgon, D., Jangoux, M., Vaïtilingon, D. & Eeckhaut. Larval development of the symbiotic ophiuroid *Ophiomastix venosa*. p.30
- Entrambasaguas, L., Pérez Ruzafa, A., Garcia Charton, J.A. & Bacallado, J.J. Spatial distribution and habitat characteristics of the echinoderm assemblage at Cabo Verde Islands. p.28
- Pérez-Ruzafa, A., Entrambasaguas, L., Garcia Charton, J. A. & Bacallado, J. J. Spatial relationships of the echinoderm fauna of Cape Verde islands at local and biogeographical scales. p.40
- Pavlychkov, V.A., Mokretsova N.D., Gavrilova G.S., Yurieva M.I. & Bocharov L.N. Echinoderms

investigations in Russian Far East. p.40

Ecology and populations

Joly, G., Guillou, M. & Dubois, P. Population dynamics of *Asterias rubens* under contrasted pollution conditions. p.35

Barker, M.F. A pilot study of stock enhancement of populations of the New Zealand sea urchin *Evechinus chloroticus* by juvenile reseeding. p.20

Dupont, S., Dewael, Y. & Mallefet, J. Genes in the spotlight: a new genetic marker for bioluminescent ophiuroids. p.27

Perrin, C., Wing, S. & Roy, M. S. Population genetics of the sea urchin *Evechinus chloroticus* and the sea star *Coscinasterias muricata* among New Zealand's fiords. p.41

Féral, J.-P., Villard A.-M., Barré, N. & Chenuil A. What is the smallest distance of genetic differentiation in the brood protecting ophiuroid *Amphipholis squamata* from Western Mediterranean ? p.28

Chenuil, A., Villard, A. & Féral, J.-P. Molecular markers strongly suggest the presence of at least two distinct species of "Echinocardium cordatum" in the Atlantic Ocean and the Mediterranean Sea. p.24

Phylogeny and evolution

Haude, R. The origin of holothurians in Prokruste's bed of embryology and palaeobiology. p.32

Byrne, M. & Villinski, J. Evolution of maternal provisioning in echinoderms. p.22

Knott, K.E., Balsler, E. J., Jaeckle, W.B. & Wray, G.A. Using molecular data to identify cloning asteroid larvae. p.35

Janies, D. Asteroid phylogeny. p.34

Posters presented at the 6th ECE

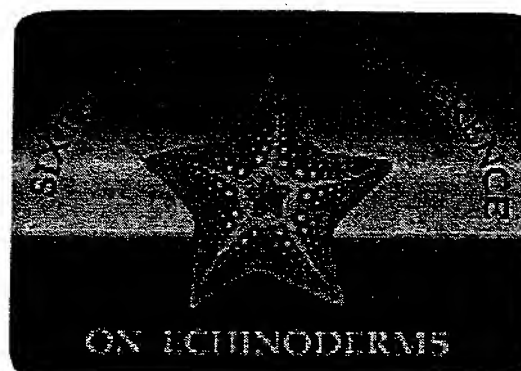
Alves, S.L.S. & Ventura, C.R.R. Size structure and asexual reproduction in two populations of the fissiparous asteroid *Coscinasterias tenuispina* (Lamarck, 1816) from Rio de Janeiro, Brazil. p.46

Brosseau, O. SEM and morphometric analysis of pedicellariae in *Stylocidaris affinis* (Philippi) (Echinodermata, Echinoidea, Cidaridae). p.46

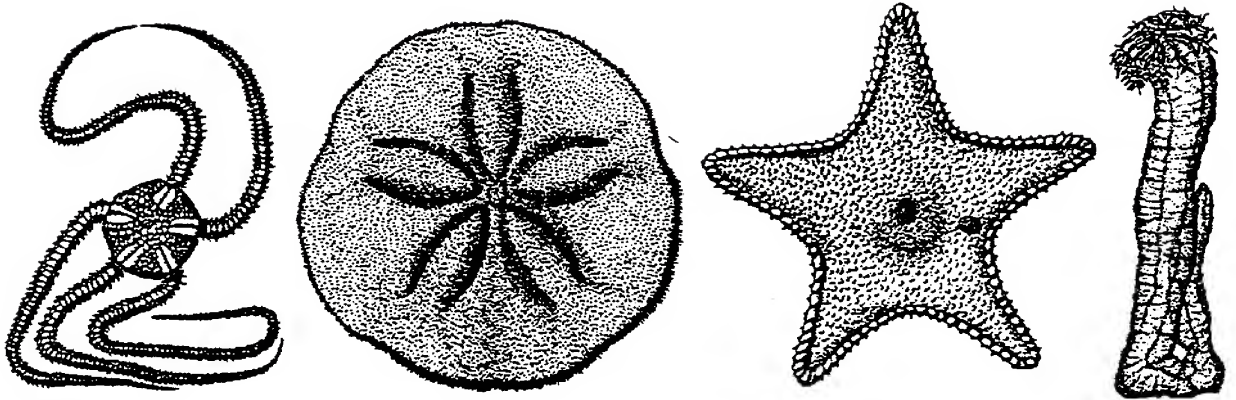
- Dewael, Y. & Mallefet, J. Calcium channels involved in the luminescence control of ophiuroids (Echinodermata): patch-clamp study. p.47
- Dolmatov, I., Ferreri, P., Bonasoro, F. & Candia Carnevali, M.D. Visceral regeneration in the crinoid *Antedon mediterranea*. p.47
- Dupont, S. & Mallefet, J. Aberrant forms in the brittle-star *Amphipholis squamata*. p.48
- Eléaume, M., Améziane, N. & Baumiller, T. Body size and life cycles in nonfeeding larvae of viviparous comatulids (Echinodermata). p.48
- Fauville, G., Dupont, S. & Mallefet, J. Comparison of naturally and chemically induced luminescence in the brittle-star *Amphipholis squamata*. p.49
- Fernandez, C., Pasqualini, V., Caltagirone, A. & Boudouresque, C.-F. Stock evaluation of the sea urchin *Paracentrotus lividus* in a lagoonal environment. p.49
- Fontanella, F.M. & Hopkins, T.S. New insights into the functional role of the inter-tubercular pores and glassy tubercles in *Echinaster (Othilia)*. p.50
- François, E., Marchand, D. & David, B. A model for apical system variations. Application to the genus *Toxaster* (Spatangoida). p.50
- Fujita, T. Arm regeneration frequency in the bathyal populations of *Ophiura sarsii* off northern Japan. p.51
- Gil Cid, D., Arroyo, F. & Torices, A. Types of diversity in the Ordovician echinoderms from Spain. p.52
- Gil Cid, D., Arroyo, F. & Torices, A. Lower Paleozoic echinoderms from Spain: a synthesis. p.51
- Gil Cid, D., Arroyo, F. & Torices, A. Taphonomic aspects of the Ordovician blastozoa (Diploporita, Cystoidea) from SW Spain. p.52
- Harshany, D., Lawrence, J. & Edwards, S. Production in the starfish *Luidia clathrata* measured directly and calculated from the specific dynamic action. p.53
- Hopkins, T.S., Fontanella, F.M. & Ventura, R. Morphological variation in three South Atlantic sea stars of the genus *Echinaster (Othilia)*. p.53
- Idema, J. Brood protection or to find a way for food for the young specimens of *Ophiothrix fragilis* (Abildgaard). p.54
- Ishida, Y. Cenozoic ophiuroids from Japan. p.54
- Jagt, J.W.M., Deckers, M., Dortangs, R. & Michels, G. Drilling predation in Late Cretaceous echinoids from the Maastricht area (the Netherlands, Belgium). p.56
- Jagt, J.W.M. & Wille, E. Pliocene echinoid faunules from Kallo (Antwerp area, NW Belgium). p.55

- Jagt, J.W.M. & Riegraf, W. Late Cretaceous ophiuroids from the Münsterland Basin (Germany): preliminary observations. p.55
- Kutscher, M. & Reich, M.: Echinoids from the Silurian of the Isle of Gotland, Sweden. p.56
- Lawrence, J., Plank, L., McBride, S. & Shpigel, M. Sublethal effects of ammonia on the sea urchins *Lytechinus variegatus*, *Arbacia punctulata*, *Strongylocentrotus franciscanus*, and *Paracentrotus lividus*. p.57
- Leoni, V., Fernandez, C., Johnson, M., Ferrat, L. & Pergent-Martini, C. Annual gonadic index cycle in the sea urchin *Paracentrotus lividus* in a lagoonal and marine environment. p.57
- Lepskaya, N.V., Zadorozhny, P.A., Borisovets, E.E. & Yakush, E.V. Gonads coloring and its dynamics in the maturing process of sea urchins *Strongylocentrotus intermedius* and *S. nudus*. p.58
- Lima, R.P.N., Ventura, C.R.R. & Campos-Creasey, L.S. Temporal variation of gonad morphology and gametogenesis of the commercial sea cucumber *Isostichopus badionotus* from southeast Brazil. p.58
- Long, S. & Byrne, M. Evolution of the echinoderm Hox gene cluster. p.59
- Malfet, J., Brugeman, O. Dupont, S., Bannister, R. & Thorndyke, M. Regeneration in the ophiuroid *Amphiura filiformis* : temperature effects. p.59
- Martin-Garin, B., David, B. & Thierry, J. Quantification of the relationship between morphology- environment for the fossil sea-urchin *Collyrites analis* (Disasteroidea; Middle Jurassic). p.60
- Martinez, I., Garcia, F. J., Daza, J.L., del Castillo, F. & Pérez, M. Biological cycle of *Paracentrotus lividus* (Lamarck) in three habitats of southern Spain. p.60
- Mazzone, F., Byrne, M. & Thorndyke, M. Arm autotomy and nerve cord regeneration in *Coscinasterias muricata*. p.61
- Mendes, C.L.T., Tavares, C.M. & Campos-Creasey, L.S. Food preference of *Echinometra lucunter* (Echinodermata: Echinoidea) in relation to algal availability on a rocky shore in southeast Brazil. p.61
- Moussa, B., Néreaudeau, D. & David, B. Echinoids distribution in the Iullemeden Basin (West Africa) and their paleobiogeographical significance. p.62
- Néreaudeau, D., Crônier, C. & Villier, L. The status of the *Periaster* genus and the problematical origins of the Schizasterid echinoids. p.62
- Pereira, A.D. & Ventura, C.R.R. Reproductive cycle of *Echinaster (Othilia) brasiliensis* (Echinodermata: Asteroidea) in Cabo Frio region, Brazil. p.63
- Reich, M. Fossil calcareous ring elements of Holothuroidea. p.63
- Reich, M. & Villier, L. Holothurians from the Toarcian of western France. p.64

- Santos, R., Haesaerts, D., Jangoux, M. & Flammang, P. Comparative histological and immunohistochemical study of asteroid tube foot adhesion. p.64
- Shibata, T. & Oji, T. Comatulid garden from the Miocene of western Japan. p.65
- Smith, A. Echinoids on the web. p.65
- Thandar, A.S., Seoraj N. & Moodley G.K. Feeding in laboratory-eviscerated specimens of *Holothuria (Semperothuria) cinerascens* (Brandt, 1835) - a preliminary report. p.65
- Thorndyke, M.C., Patruno, M. & Wray, G.A. Engrailed expression during regeneration in the brittlestar *Amphiura filiformis*. p.66
- Thorndyke, M.C., Patruno, M., Chen, W.C., Beesley, P.W., Graham, A., McGonnell, I. & Candia Carnev M.D. Expression studies on homeobox and bmp homologues in echinoderm neuronal regeneration. p.
- Tomas, F., Turon, X., Romero, J. & Lopez-Sendino, P. Recruitment, population structure and biological parameters of *Paracentrotus lividus* in two contrasting habitats: rocky walls and seagrass meadows. p
- Varotto, R.S. & Ventura, C.R.R. Modeling the somatic growth and estimating the mortality of the sea-urchin *Cassidulus mitis* Krau, 1954 (Echinoidea: Cassidulidae). p.67
- Ventura, C.R.R., Alves, S.L.S., Carvalho, A.L.P.S., MacCord, F.S., Pereira, A.D. & Varotto, R.S. Interpopulation comparison of the reproductive cycle and morphological traits of *Echinometra lucunter* (Echinodermata: Echinoidea) from two different habitats in Brazilian coast. p.68
- Yurieva, M.I., Akulin, V.N. & Kleschenko, Y.E. Lipids composition of sea urchins from the Japan Sea. p



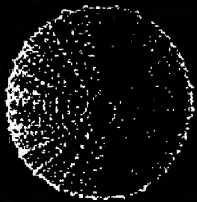
PROGRAM AND ABSTRACTS



FOURTH NORTH AMERICAN ECHINODERM CONFERENCE

AUGUST 22-26

DARLING MARINE CENTER
UNIVERSITY OF MAINE
WALPOLE, MAINE



The Echinoid Website

www.nhm.ac.uk/science/echinoids



The primary purpose of the site is to provide a taxonomic resource for the scientific community in which the genera and higher taxa of echinoid can be simply and rapidly identified. There are currently over 200 pages of detailed information about echinoid taxa. Here no holds are barred and technical terms abound. A reasonable grasp of echinoid morphology is assumed and these pages will be of most use to professional scientists and advanced researchers. For each genus information is given about the type species, the key diagnostic characters, its stratigraphical and geographical distribution, species currently assigned with confidence (not necessarily exhaustive), and remarks about recent scientific publications dealing with this taxon. Wherever possible high-quality images are provided of specimens in oral, aboral and lateral views as well as interpretive diagrams.

To access this information you can go direct to the Taxonomic index which will take you to the appropriate page, or you can use the Keys where you will find an illustrated step by step dichotomous key to help you identify which echinoid you have.

This site is a long- term project which will ultimately provide access to images of all described genera of echinoid, both recent and fossil. At present only about 20% of the genera are covered, but sections will be added as and when they are completed. The taxa that are covered comprehensively are as follows (with dates of posting or latest revision):-

Diadematoidea (17/01/01)

Pedinoidea (23/2/01)

Salenoidea (5/12/00)

Echinoidea (5/12/00)

Hololectypoida (5/12/00)

Clypeasteroidea (15/6/01)

In addition there is an Introduction giving some basic facts about how echinoids live, feed and reproduce for the casual visitor with no biological training, and a section entitled Morphology and morphological terms, providing some guidance to the formidable array of technical terms.

Designed and created by Andrew B Smith, Department of Palaeontology, The Natural History Museum (email abs@nhm.ac.uk).

<http://www.nhm.ac.uk/palaeontology/echinoids/index.html>

☆☆☆☆ **ECHINODERM WEB PAGES** ☆☆☆☆

Fabián Acuña - <http://labic.hypermart.net>
Departamento de Ciencias Marinas, Mar del Plata, Argentina

Nadia Ameziane - www.mnhn.fr
Muséum National d'Histoire Naturelle, Paris

Larry Basch, Ecologist--Coastal Manager
National Park Service
Alaska Southeast Coastal Parks Cluster:
Glacier Bay, Klondike Gold Rush, Sitka, & Wrangell-St. Elias National Parks
Larry_Basch@nps.gov
sealives@seaknet.alaska.edu
<http://www.nps.gov/glba/>
<http://www.nps.gov/klgo/>
<http://www.nps.gov/sitk/>
<http://www.nps.gov/wrst/home.html>

Penny Berents - Collection Manager - Marine Invertebrates - Australia
<http://www.austmus.gov.au>

Christiane Biermann - <http://faculty.washington.edu/biermann/>
Includes some samples of my research on fertilization and population genetics in stronglylocotrotids and echinids.

David Billett - <http://www.soc.soton.ac.uk/GDD/DEEPSEAS/>
DEEPSEAS Benthic Biology Group at Southampton Oceanography Centre

Ruediger Birenheide - www.birenheide.com/cemb
Canadian Echinoderm Message Board - set up to encourage conversation between Canadian and all other interested echinoderm scientists.

Francesco Bonasoro - <http://imiucca.csi.unimi.it/~echino/5ece7.htm>

Thomas Brey - <http://www.awi-bremerhaven.de>
Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany

Peter Brueggeman - Scripps Institution of Oceanography Library
<http://scilib.ucsd.edu/sio/nsf/guide/echinodermata-1.html>
<http://scilib.ucsd.edu/sio/nsf/guide/echinodermata-2.html>
McMurdo Sound, Antarctica echinoderms

Casey Burns - <http://kendaco.telebyte.com/cburns/paleo>
Various images related to my echinoderm research, usually pictures of specimens

recently collected, localities, etc.

David J. Carroll - A brief description of my research interests and list of publications
<http://www.bio.fit.edu/Faculty/carroll.htm>

Suraphol Chunhabundit - www.arri.chula.ac.th
Aquatic Resources Research Institute, Chulalongkorn University, Thailand

Ron Clouse - <http://www.clouseart.com/>

Chantal Conand - http://www.univ-reunion.fr/t10_fac_sciences/t10_plaquette/ecomar.htm
Beche de Mer Bulletin (SPC) - www.spc.org.nc/coastfish

Costello, Mark J. - developing a European Register of Marine Species: details at web site
erms.biol.soton.ac.uk

Costello, Mark J. - Ecological Consultancy Services Ltd (EcoServe) at www.ecoserve.ie

Dafni, J. - www.dafni.com/gulfsave/jdafni.html

James Dalby - <http://www.gov.bc.ca/elp>
BC Ministry of Environment, Lands & Parks

Claire Dalglish - Our company is currently working with macrobenthos sampled from the North East Atlantic margin, mainly in the Faroe-Shetland channel as part of environmental monitoring programmes within the oil and gas industry, UK. Environment and Resource Technology's Homepage offering an introduction to a wide range of inhouse environmental capabilities at www.ert.co.uk

Bruno David - <http://www.u-bourgogne.fr/BIOGEOSCIENCE/>

Dimitri D. Deheyn - <http://siobiolum.ucsd.edu>
Site describing the research topics in the lab (M. LATZ's lab), Scripps Institution of Oceanography.

Yannick Dewael - <http://lifesci.ucsb.edu/~biolum/forum/ydewael1.html>
My page on the bioluminescence web site.

Patricio Dominguez-Alonso - <http://www.ucm.es/info/paleo/personal/patricio.htm>
Personal page with interests and publication list

Samuel Dupont -
1/ Summary of my PhD project
<http://lifesci.ucsb.edu/~biolum/forum/sdupont1.html>

2/ Personal page and Curriculum vitae (Update 20 March 2000)
<http://www.biol.ucl.ac.be/fyga/Dupont.html>

3/ Web page of the Animal Physiology lab
<http://www.biol.ucl.ac.be/fyga/>

Also, from Sam Dupont

Results of project on the small bioluminescent ophiuroid *Amphipholis squamata* presented at the **11th International Symposium on Bioluminescence and Chemiluminescence**.

Oral communication presented as a web page.

I invite you to visit <http://www.biol.ucl.ac.be/fyga/californie/page1.html>

Ebert, T. A. 1998. Plant and Animal Populations. Methods in Demography. Academic Press, San Diego, CA 312p The book includes various echinoderm examples for illustrating analysis of growth, survival, allometry and matrix methods; see http://www.sci.sdsu.edu/Cornered_Rat/

Jon Eggert - (contact: midvangur@islandia.is). Reference Page http://www.islandia.is/~midvangur/new_page_8.htm

Jean-Pierre Féral - <http://www.obs-banyuls.fr/web/departs/feral/biolpop/Accueil1.htm>
UMR 7628 - MODELES EN BIOLOGIE CELLULAIRE ET EVOLUTIVE
Biologie de Populations et Évolution des Invertébrés Marins.

The 6th European Conference on Echinoderms, Banyuls-sur-mer, France on September 3-7, 2001

<http://www.obs-banyuls.fr/web/departs/feral/biolpop/Accueil1.htm>

Maria Dolores Gil Cid - <http://www.ucm.es/info/paleo/personal/gilcid.htm>
Professor, Department of Paleontology, Ciudad University, Madrid, Spain
ViceDirector del Instituto de Geología Económica (CSIC-UCM).

Kriton Glenn - <http://www.agso.gov.au>
AUSTRALIAN GEOLOGICAL SURVEY ORGANISATION

Ben Greenstein - <http://www.cornell-iowa.edu/~bgreenstein>

Philippe Grosjean - Marine Biology Laboratory, ULB, Belgium, Mariculture and Biostatistic, SciViews Project Coordinator - <http://www.sciviews.org>

Monique Guillou -

My main echinoderm model in ecology and ecotoxicology is *Sphaerechinus granularis*. Please find in this web page some informations to better know this sea urchin.

<http://www.univ-brest.fr/IUEM/BIOFLUX/PNDR/echino.html>

In *Sphaerechinus granularis* resource allocation is "plastic" and varies in response to environmental changes. The following page presents changes in the reproductive strategy of this species according to food availability.

<http://www.univ-brest.fr/IUEM/BIOFLUX/PNDR/allocener.html>

Rosemary Hall - Curriculum vitae
<http://RosemaryHall.homestead.com/REHCurriculumVitae.html>

Jean-François Hamel - www.seve.cjb.net

Reimund Haude - <http://www.gwdg.de/~uggpwww/>

Joan Herrera - <http://nersp.nerdc.ufl.edu/~herrera/>

Liam Herringshaw - This is a fairly simple personal profile of me within the School of Earth Sciences' website. It includes a particularly scary photograph.

http://www.bham.ac.uk/EarthSciences/people/research/herringshaw_1.html

Alan Hodgson - <http://www.rhodes.ac.za/conferences/icird2001>

9th International Congress on Invertebrate Reproduction and Development. July 2001. First announcement and preliminary details

Anne Hoggett and Lyle Vail - <http://www.austmus.gov.au/science/projects/lizard/index.htm>
Directors, Lizard Island Research Station

Susan Hottenrott - <http://home.att.net/~ophiuroid>

"The Ophiuroidea- bringing you the very latest in ophiuroid technology, news and gossip" This is an entertaining and informative site for both for the general public seeking ophiuroid basics as well as colleagues and graduate students seeking information on museum collections, funding and systematics resources.

Fatih Huseyinoglu - www.geocities.com/fateaux

personal web page, includes personal pictures, *Asterias rubens* and some downloadable documents.

John W.M. Jagt - www.nhmmaastricht.nl

Natuurhistorisch Museum Maastricht

R. Jeyabhaskaran - <http://www.nio.org>

Biological Oceanography Division, National Institute of Oceanography, Dona Paula India.

Craig Johnson - Tasmanian Aquaculture and Fisheries Institute [TAFI]

TAFI web site: http://www.utas.edu.au/docs/tafi/TAFI_Homepage.html

University of Tasmania, Dept of Zoology-

Zoology web site: <http://www.utas.edu.au/docs/zoology/homepage.html>

Thomas Kammer - <http://www.geo.wvu.edu/~kammer/welcome.htm>

Brian Keller - www.fknms.nos.noaa.gov

Alexander Kerr - Tree of Life Holothuroidea Web Page

<http://phylogeny.arizona.edu/tree/eukaryotes/animals/echinodermata/holothuroidea/holothuroidea.html>

Philip Lambert - <http://rbcm1.rbcm.gov.bc.ca> Royal British Columbia Museum web site.
Includes information on all aspects of the museum.

<http://www.royalbcmuseum.bc.ca/research-collectionsdept/nat-hist/section/lambert.html>

John Lucas - URL Aquaculture: <http://www.jcu.edu.au/dept/Aquaculture/aquacult.htm>

Chris Mah - <http://www.geology.uiuc.edu/~fossils/> This page currently describes the research program in our lab. (Currently out of date but should be more up to date very soon!)

Richard Martin - <http://www.marine.csiro.au/CRIMP/>
Home page for the CSIRO Centre for Research on Introduced Marine Pests

J. Douglas McKenzie - www.integrin.co.uk
(Integrin Advanced Biosystems Ltd, Marine Resource Centre, Oban, Scotland) deals mostly with marine invertebrates.

Tamara McGovern - details research and study system
<http://bio.fsu.edu/~mcgovern/>

Charles Messing's comatulid crinoid page: morphology, taxonomy, ecology & feeding)
<http://www.nova.edu/ocean/messing/crinoids/w1title.html>

Philip Mladenov - <http://gandalf.otago.ac.nz:800/Marine/marine.htm>

Rich Mooi - CAS Echinoderm Web Page
www.calacademy.org/research/izg/echinoderm/

Andrew Morgan - <http://www.auckland.ac.nz/leigh>
Leigh Marine Laboratory web page:
<http://www.auckland.ac.nz/Students/amorgan>

Tatsuo Motokawa - <http://www.bio.titech.ac.jp/~tmotokaw/>
Basic Biology, Tokyo Institute of Technology

James Nebelsick - <http://homepages.uni-tuebingen.de/nebelsick/>
Great animation of a "Clypeaster going down the taphonomic road to destruction"

Richard Pagett - <http://www.interventionworks.com>
Environmental Management & Training, Wiltshire, UK

John Pearse - <http://www.biology.ucsc.edu/faculty/pearse.html>

Vaclav Petr - A complete and updated bibliography of Rudolph J. Prokop
<http://www.natur.cuni.cz/~vpetr/Rudolph.htm>
English home page - <http://www.natur.cuni.cz/~vpetr/Anglicky.htm>
Petr bibliography - <http://www.natur.cuni.cz/~vpetr/Petr.htm>
Anniversary article for F.H.C. Hotchkiss - <http://www.natur.cuni.cz/~vpetr/Birth.htm>

Dieter Piepenburg - <http://www.uni-kiel.de/ipoe>

Mike Reich - <http://www.uni-greifswald.de>
"The Fossil Holothuroidea Webpage"
<http://www.uni-greifswald.de/~geo/REICH/P224.htm>

Mike Reich, (University of Greifswald, Germany)

has prepared a bibliography of fossil holothurians (after 1990) -- please check:

<http://www.uni-greifswald.de/~geo/REICH/P310.htm>

[the complete bibliography of fossil holothurians (1828-1999) will be published next year].

Paige Rothenberger - <http://rps.uvi.edu/vimas>

VI Marine Advisory Service, Center for Marine & Environmental Studies, University of the Virgin Islands

Michael S. Roy - <http://www.otago.ac.nz/Zoology/staff/mr.html>

Michael P. Russell - www.homepage.villanova.edu/michael.russell

Personal web site

Bernhard Ruthensteiner (Conservator and Leader of the Invertebrate Section)

http://www.zsm.mwn.de/wiss_start.htm

Zoological State Collection Munich, Echinoderm Collection.

I would like to announce that information on the type material of our echinoderm collection is available at this Web-address.

Go to Evert. varia Sammlung. There is a list of echinoderm type specimens. The echinoderm collection consists mainly of material collected by Ludwig Döderlein in Japan. (Email: BRuthensteiner@zsm.mwn.de)

Robert Singletary - <http://www.bridgeport.edu/~robert>

Mattias Skold - <http://www.otago.ac.nz/MarineScience>

Norman Sloan - www.harbour.com/parkscan/gwail

Marine Ecologist, Gwaii Haanas National Park Reserve sea cucumber fisheries.

Andrew Smith - www.nhm.ac.uk/palaeontology/echinoids/index.html

Taxonomic website on the genera of Echinoidea. The site currently stands at some 3400 items and about 400 high quality images of the genera, comprehensive for the Diadematoida, Echinoida, Holecypoida, Salenioida and Clypeasteroida. In addition there are systematic keys and introductory sections on the morphology and biology of echinoids.

L. Courtney Smith - www.gwu.edu/~clade/faculty/smith.html

Renate Sponer - molecular evolution of ophiuroids: phylogeny, phylogeography, population genetics in *Amphipholis squamata*, *Ophiactis savignyi*, *Ophiocoma scolopendrina*.

<http://www.dnapop.zi.ku.dk>

Kathryn Stevenson - <http://www.gla.ac.uk/Acad/Marine/library.htm>

University Marine Biological Station, Millport, Isle of Cumbrae, Scotland

Sabine Stoehr - <http://www.nrm.se/ev/staff/stohr.html.en>

Jarek Stolarski - www.paleo.pan.pl

Institute of Paleobiology, Polish Academy of Sciences

Claudio Tiago and Valeria Hadel - <http://www.usp.br/cbm/>
Homepage Centro de Biologia Marinha at Unversidade de São Paulo, Brasil

Research page - <http://www.usp.br/cbm/pesquisa.html>

BIOTA/FAPESP - The Virtual Institute of Biodiversity - <http://www.biotasp.org.br>
This is a biodiversity conservation and sustainable use research program for the State of São Paulo, Brazil, sponsored by FAPESP.

Tommasi, L.R. 1999. Echinodermata recentes e fósseis do Brasil. In: BDT - Informação científica -Diversidade de espécies - Fauna - Invertebrados. Campinas: Banco de Dados 123Tropical. [in Portuguese]. <http://www.bdt.org.br/zoologia/echinodermata/>

Curriculum involving echinoderms, especially the Brazilian REVIZEE material (NE and SE Brazilian regions); also, antarctic collections; palaeobiogeography and modern biogeography of echinoderms in the South Atlantic region.
www.geocities.com/CollegePark/center/2122

Mat Vanderklift - <http://www.botany.uwa.edu.au/marine/homepages/matvanderklift.html>

Jacob van der Land - <http://www2.eti.uva.nl/database/urmo/default.html>
editor of Unesco-IOC Register of Marine Organisms (URMO)

Steve Veatch - http://geoscience.htmlplanet.com/Sea_urchin.htm
short paper on fossil sea urchins near Garden of the Gods, Colorado.

Anders Waren - <http://www.nrm.se/ev/staff/waren.html.se>

Gert Woerheide - <http://www.calcarea.nu>
Calcareous sponges from the Great Barrier Reef

Greg Wray - The Tree of Life home page: <http://ag.arizona.edu/ENTO/tree/phylogeny.html>

Echinodermata: <http://phylogeny.arizona.edu/tree/eukaryotes/animals/echinodermata/echinodermata.html>

Crinoidea: <http://phylogeny.arizona.edu/tree/eukaryotes/animals/echinodermata/crinoidea/crinoidea.html>

Jiri Zitt - <http://www.grisoft.cz>
Zkontrolovano antivirovym systemem AVG

☆☆☆☆☆ INFORMATION REQUESTS ☆☆☆☆☆

BUNDRICK, CARLA - is collecting submissions of Echinoderm Poetry (original works, please!) For an upcoming publication honoring Walter Garstang. Snail-mail and email accepted. Please contact me at bookw342@aol.com or 24 Talbot Street, Salinas CA 93901

DELBONI, CYNTHIA GRAZIELLE MARTINS - requests papers published on ossicle formation in holothurians, methods of preparation etc.
Please contact cydelbon@zaz.com.br

HENKEL, TIMOTHY - I am interested in habitat use of the sponge-dwelling ophiuroid *Ophiothrix lineata* and am looking for any sitings or samples in collection and where they were found.
Please contact henkelt@uncwil.edu

HORSTMAN, DEON - I'm starting to assess the mariculture potential of an indigenous sea urchin *Tripneustes gratilla* through laboratory rearing of early life history stages. I would urgently like to make contact with scientists doing similar research.
Please contact horstman@sfri.wcape.gov.za

IVY, GRISILDA - requests reprints related to sea cucumber culture and reproductive biology.
Please contact ivygrisilda@hotmail.com

JACKSON, JENNIFER - I am really keen to aquire DNA samples of irregular echinoidea, particularly any spatangoidea and clypeasteroidea. I only need about a cm square of tissue or 0.5g of test in order to perform a successful extraction so any material would be useful and very gratefully appreciated.
Please contact jennifer.jackson@linacre.ox.ac.uk

JAGT, JOHN W.M. - I would greatly appreciate receiving any Recent ophiuroids (preferably identified to species level, and representing all orders), or fragments of such (in particular arms), for an ongoing study of fossil brittle stars (Late Cretaceous of NW Europe).
Please contact me at mail@nhmmaastricht.nl

JEYABASKARAN, R. - requests information about taxonomy of corals and their associated animals.
Please contact jaybas@darya.nio.org

MAGSINO, RICHARD - I would like to request literature reprints from researchers working on the population genetics of reef invertebrates. I will be very thankful if I can get contacts with specialists in the field.
Please contact rickym@upmsi.ph

MENDES, CARLA LIMA TORRES - requests information related to the following topics.
Feeding ecology of *Echinometra lucunter*: feeding preference in relation to food availability in Cabo Frio region, Rio de Janeiro, Brazil.

Please contact at carlamendes@rjnet.com.br

NITHYANANDAN, MANICKAM - I request reprints regarding the deep sea echinoderms of the east coast of India (Bay of Bengal).

Please contact nithyanandanm@yahoo.com

ORTIZ, EDUARDO MORTEO - I'm currently studying about the artisanal fishery of starfish in Baja California, Mexico. I would appreciate any information relating to this topic.

Please contact eddymorteo@hotmail.com

OYEN, CRAIG - I am gathering data (species diversity, geographic and biostratigraphic distribution) regarding fossil comatulid crinoids from the southeastern U.S. Any comments regarding occurrences from Texas to Maryland is welcome.

Please contact cwoyen@ship.edu

RANNER, HERWIG - I would be interested in having information about the geographic distribution of *Asterias rubens* worldwide.

Please contact herwig.ranner@gmx.net

TAHERA, QASEEM - would appreciate any publication on echinoderms relating to taxonomy, systematics, reproduction and larval distribution.

Please contact qaseem@mrc.ku.edu.pk

TAVARES, YARA APARECIDA GARCIA - I'm beginning study sea urchin fishery monitoring and I would like to contact some specialist in echinoids fisheries and receive publications about sea urchin aquaculture and management.

Please contact me at ytavares@aica.cem.ufpr.br

☆☆☆ CONFERENCE ANNOUNCEMENT ☆☆☆

Communicated by Thomas Heinzeller

11th International Echinoderm Conference Munich 2003

Please be informed that the website www.iec2003.uni-muenchen.de is on-line

The 11th International Echinoderm Conference will be held at the Ludwig-Maximilians-Universität, Munich, Germany, from October 6 - 10, 2003. The Local Organising Committee comprises members of the Medical Faculty (U.Welsch, T. Heinzeller), and of the Faculty of Geological Sciences (R.Leinfelder).

Registration and abstracts as well as special requests, comments and proposals should all be sent to T. Heinzeller, if ever possible by e-mail (Heinzeller@anat.med.uni-muenchen.de).

Those to whom it is not possible, may post to:

11th IEC 2003
Prof. Dr. Thomas Heinzeller
Anatomische Anstalt der LMU
Pettenkoferstrasse 11
D-80336 Muenchen
Germany

Key Dates and Registration

Dates and Deadlines:

As soon as possible: booking of the hotel (for details see Accomodation)

April 1, 2003: Submission of abstracts. Only abstracts submitted in time can be included in the abstract booklet.

April 1, 2003: Latest date to pay the reduced registration fee

June 1, 2003: Submission of manuscripts for the proceedings volume

July 1, 2003: Deadline for room booking by the Munich Tourist Office

Cancellations and Refunds:

between July 1, 2003, and September 1, 2003, requests will be refunded minus only a moderate handling fee

between September 2, 2003, and October 5, 2003: 50% refund

October 5, 2003, evening: Arrival and Welcome-Party

October 8, 2003, afternoon: Excursion, evening: Banquet

October 10, 2003, afternoon: to say goodbye
The days thereafter: Post-conference excursions (see Social events and Excursions)

Registration

Downloading a registration form will be possible from April 2002

Further links:

IEC-Homepage
Venue, Travel and Accomodation
Scientific Programme
Presentations and Proceedings
Social Events and Excursions



Communicated by Mike Reich

The "1. Arbeitstreffen deutschsprachiger Echinodermenforscher" "1st meeting of german speaking Echinoderm Researcher"

was held at Greifswald (Northeastern Germany, 200 km north of Berlin on the Baltic Sea coast) from May 11 to 13, 2001

<http://www.echinodermata.de/echino.htm>

email: reichmi@mail.uni-greifswald.de



ANNOUNCEMENT

Press release - Sea Cucumber Research

Communicated by Julia Elliott (University of Hull)

The University of Hull on a mission to save the sea cucumber.

The University is taking the lead in a major international project to save the sea cucumber - an extremely odd looking creature - but one of the ocean's most important marine species with environmental, gastronomic and potential medicinal qualities.

Dr Andrew Lawrence of the Department of Biological Sciences has been awarded £60,700 by the Government's Darwin Initiative to develop a sustainable fishery on the Red Sea coast of Egypt.

Hull has beaten off stiff competition from other universities and conservation organisations to win the grant for the project which begins in September 2001. It is one of 31 projects under the prestigious Initiative which was established at the Rio Summit in 1992 and aims to safeguard the world's biodiversity.

Sea cucumbers are closely related to starfish and sea urchins and live predominantly in the Tropics. They are believed to have medicinal qualities in the treatment of whooping cough, bronchial inflammation and arthritis and also perhaps in the treatment of tumors. In the Far East in particular, they are also exploited as a dried, salted or smoked food called Trepang or Beche-de-mer.

'Sea cucumbers are in high demand and their fisheries have a history of over-exploitation and collapse, leaving behind a disrupted and impoverished environment,' said Dr Lawrence.

'This is made even worse by the fact that sea cucumbers are a key species, playing a vital role in the structure and function of coral reef communities. The degradation of the reefs adversely affect other fisheries and the tourist industry. In no case so far has a sea cucumber fishery been maintained and sustainable, which is why this project is so important.'

There are four main elements to the project:

- * To measure the current stocks of sea cucumbers to develop a sustainable fishery plan
- * To develop a pilot 'mariculture system' which will be used to restock depleted areas of the coast and small sitale, community based, farming systems.
- * To identify and extract certain materials from the sea cucumbers which have potential medical benefits - for example antibacterial and antifungal properties.
- * To train local people in stock assessment methods and fishermen in mariculture techniques.

Three Egyptian research students will be coming to the University to work on the project with Dr Lawrence. It will be one of the first collaborations between the University and Hull's new World Ocean Discovery Centre, The Deep, which has offered to support the project in any way possible and help with the dissemination of the results. The University will also be working with the Suez Canal University, the Egyptian Environmental Affairs Agency and the Red Sea Governate.

'All four elements of the project will enable the Egyptian Government to put into place a management plan for the sustainable exploitation of sea cucumbers,' said Dr Lawrence.

More about the exploitation of sea cucumbers

- * Sea cucumber fisheries have collapsed throughout the Indo Pacific with many expensive species being commercially extinct in countries including the Solomon Islands, Cook Islands and Fiji.
- * In one extreme case, demand has led to the development of an illegal fishery in the Galapagos Marine Reserve. Attempts to close it have resulted in direct confrontation between fishermen and conservationists.
- * Clandestine fisheries have been set up on pristine islands and there have been disturbing cases of

ecoterrorism.

* The fishery on the Red Sea Coast of Egypt would have most probably followed the pattern of other fisheries had this project not been developed.

More details: Julia Elliott, Public Relations Office 10482 466326

Release issued: 31/5/2001

Julia Elliott
Public Relations,
Administration Building
University of Hull
Hull HU6 7RX
Telephone: (01482) 466326
FAX: (") 466442
E-Mail: Julia.Elliott@hull.ac.uk



NEW BOOK ANNOUNCEMENTS

(Contributed by John M. Lawrence)

Jangoux, M., and J.M. Lawrence. (editors) 2001. Echinoderm Studies. Volume 6. A.A. Balkema, Lisse. (Swets & Zeitlinger Publishers, P.O. Box 1675, 3000 BR Rotterdam, The Netherlands. FAX +31 10 4135947)

Balch, T., and R.E. Scheibling. Larval supply, settlement and recruitment in echinoderms. 1-83.
Mita, M., and M. Nakamura. Energy metabolism of sea urchin spermatozoa: the endogenous substrate and ultrastructural correlates. 85-110.

De Ridder, C., and T.W. Foret. Non-parasitic symbioses between echinoderms and bacteria. 111-169.

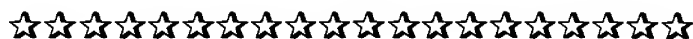
Ausich, W.I. Echinoderm taphonomy. 171-227.

Clark, A.M., and C. Mah. An index of names of recent Asteroidea -- Part 4: Forcipulatida and Brisingida. 229-347.



Lawrence, J.M. (ed.) 2001. Edible sea urchins: biology and ecology. Elsevier, Amsterdam, The Netherlands. (Elsevier Science, PO BOx 945, New York, NY 10159-0945, FAX 1-212-633-3680; Elsevier Science, PO Box 211, 1000 AE Amsterdam, The Netherlands, FAX 31-20-4853432)

- Lawrence, J.M. The edible sea urchins. 1-4
Walker, C.W., T. Unuma, N.A. McGinn, L.M. Harrington, and M.P. Lesser. Reproduction of sea urchins. 5-26
Marsh, A.G., and S.A. Watts. Energy metabolism and gonad development. 27-42
Wasson, K.M., and S.A. Watts. Reproductive endocrinology of sea urchins. 43-57
McEdward, L.R., and B.G. Miner. Echinoid larval ecology. 59-78
Ebert, T.A. Growth and survival of post-settlement sea urchins. 79-102
Lawrence, J.M., and T.S. Klinger. Digestion in sea urchins. 103-113
Matsuno, T., and M. Tsushima. Carotenoids in sea urchins. 115-138
Tajima, K., and J.M. Lawrence. Disease in edible sea urchins. 139-148
Andrew, N., and M. Byrne. The ecology of *Centrostephanus rodgersii*. 149-160
Vasquez, J. Ecology of *Loxechinus albus*. 161-175
Boudouresque, C.-F., and M. Verlacque. Ecology of *Paracentrotus lividus*. 177-216
Kelly, M., and E. Cook. The ecology of *Psammechinus miliaris*. 217-224
McClanahan, T.R., and N.A. Muthiga. The ecology of *Echinometra*. 225-243
Barker, M.F. The ecology of *Evechinus chloroticus*. 245-260
Keesing, J. The ecology of *Heliocidaris erythrogramma*. 261-270
Scheibling, R.E., and B.G. Hatcher. The ecology of *Strongylocentrotus droebachiensis*. 271-306
Tegner, M.J. The ecology of *Strongylocentrotus franciscanus* and *Strongylocentrotus droebachiensis*. 307-331
Agatsuma, Y. Ecology of *Strongylocentrotus intermedius*. 333-346
Agatsuma, Y. Ecology of *Strongylocentrotus nudus*. 347-361
Agatsuma, Y. Ecology of *Hemicentrotus pulcherrimus*, *Pseudocentrotus depressus*, and *Anthocidaris crassispina* in southern Japan. 363-374
Watts, S.A., J.B. McClintock, and J.M. Lawrence. The ecology of *Lytechinus variegatus*. 375-393
Lawrence, J.M., and Y. Agatsuma. The ecology of *Tripneustes*. 395-413
Lawrence, J.M. Sea-urchin roe cuisine. 415-416



**MONOGRAPHIE SUR LES OURSINS DU CORALLIEN DES ARDENNES
VADET, ALAIN**





Echinoderms of the Philippines

by Sabine Schoppe, 2000

Price: US\$12.50

Suitable For: General interest

ISBN: 9812320938

Specifications:

210 x 148 mm, 144 pages, Soft cover, Line drawings and full colour photographs

About the Book: Starfishes, sea cucumbers and sea urchins are the familiar creatures hidden behind the far less common term of echinoderms. Many species of the echinoderms can be found in the shallow waters of the Philippines seas -one of the most productive marine ecosystems in the world. Some echinoderms, such as the Crown-of Thorns sea star, are keystone predators capable of effecting enormous ecological changes; various sea cucumbers and sea urchins are the basis of important fisheries; other echinoderms are used in biomedical research, serving as sources of pharmaceuticals, and are monitored as indicators of environmental health. Over 80 different species, accompanied by brief descriptions of each one with information on habitat, associated organisms, and distribution, serve to depict and describe many conspicuous species of echinoderms. Fully illustrated with colour photographs, the book is an easy-to-follow guide for amateurs and enthusiasts alike.

To order or for more specifications check: <http://www.timesone.com.sg/te>

Copyright 1997-1999 Times Editions Pte Ltd. All rights reserved.

Dr. Sabine Schoppe
Aquatic Science and Technology Institute
State Polytechnic College of Palawan
Santa Monica
Puerto Princesa City
5300 Palawan
Philippines

schoppes@PAL-ONL.COM



ECHINODERM-L NOTICE

Looking for good Ph.D. students

Contributed by Florence Thomas

Research Fellowships available for competitive students interested in pursuing a Ph.D. on the role of physical processes in the reproductive biology of marine invertebrates. The University of South Florida offers excellent support for highly competitive graduate students. If you are interested please contact me Dr. Florence Thomas ftomas@chuma1.cas.usf.edu. I am also interested in attracting students interested in the role of physical processes in the nutrient dynamics of subtropical and tropical communities.

REPRINTS AVAILABLE

Dr. Daniel James reprints on Echinoderms. Those who are interested may please contact Dr.D.B. James at

No 13, Bharathiar Street, Metha Nagar, Chennai, Tamil Nadu 600029 INDIA

Phone: 91-044-3745351

Email: baskar_james@yahoo.com

A complete bibliography of Dr. James' reprints follows the Announcement Section (see page 142)



ANNOUNCEMENT - ON-LINE PUBLICATION

Communicated by Thomas Brey

Dear friends and colleagues,

Herewith I wish to announce the online publication of

"POPULATION DYNAMICS IN BENTHIC INVERTEBRATES - A VIRTUAL HANDBOOK"

which you will find at

<http://www.awi-bremerhaven.de/Benthic/Ecosystem/FoodWeb/Handbook/intro/index.html>

This handbook

- exists as a free-of-charge online version only - tries to summary the actual stage of methods and techniques in population dynamics studies

- is neither complete nor will it ever be, because science is a continuous process

The author

- hopes you will find this handbook useful and you will forward its website to many colleagues

- waits for feedback from readers/users

Dr. Thomas Brey

Ecosystem Research

Alfred Wegener Institute for Polar and Marine Research

snail-mail: P.O. Box 120161, D-27515 Bremerhaven, Germany

e-mail: tbrey@awi-bremerhaven.de

voice: ++49 (0) 471 4831 1316

Fax: ++49 (0) 471 4831 1149

www: <http://www.awi-bremerhaven.de>



Sea Stars

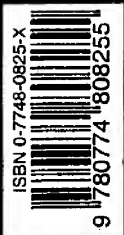
OF BRITISH COLUMBIA,
SOUTHEAST ALASKA AND PUGET SOUND

Walk along any coastal shore and you are likely to see some colourful sea stars clinging to the rocks below the surface of the water. These fascinating animals can live in almost any marine habitat, from rocky tidal pools to deep-ocean muck. Sea stars belong to a group of marine invertebrates called echinoderms, and they are related to sea cucumbers and sea urchins.

In this new handbook, Philip Lambert describes 43 species of sea stars that live in the productive coastal waters (to a depth of 200 metres) from Glacier Bay in southeast Alaska to Puget Sound in northern Washington, including the entire coast of British Columbia. The sea-star fauna of this region is the most diverse of all the temperate waters of the world, due to the great age of the Pacific Basin and the variety of habitats along this complex coastline.

Photographs and illustrations help identify all 43 species, and a colour section highlights the shallow-water animals in their natural habitats. The author also lists 26 species that live below 200 metres and 14 others that occur just north or south of the region.

Philip Lambert is curator of marine invertebrates at the Royal British Columbia Museum and author of *Sea Cucumbers of British Columbia, Southeast Alaska and Puget Sound*.



UBC Press

ISBN 0-7748-0825-X

Sea Stars

OF BRITISH COLUMBIA, SOUTHEAST ALASKA
AND PUGET SOUND

PHILIP LAMBERT

Drawings by Gretchen Markle

Photographs by Brent Cooke and Philip Lambert



UBC Press · Vancouver · Toronto

☆☆☆☆☆ **BOOK REVIEW** ☆☆☆☆☆

Contributed by Bryan Nichols
nicholsbry@pacificcoast.net

Sea Stars of British Columbia, Southeast Alaska and Puget Sound
Philip Lambert
UBC Press 2000; 186p
ISBN 0-7748-0825-X

Combine the world's most interesting and accessible assemblage of sea stars (the Pacific Northwest) with a brand new updated guide to the shallower species (43 of them) and you've got a vacation made in echinoderm heaven. Philip Lambert, curator of marine invertebrates for the Royal British Columbia Museum in Canada, has updated his small black and white text of the 80's - it's now something of a cross between a field guide and a scientific handbook.

The New "Sea Stars of BC." is bigger, longer and colorized. It includes a much needed section of color photography, mostly in situ, to complement the more clinical black and white shots of dried specimens. Rounding out the highlights for visual learners are excellent illustrations of details like plates and spines.

The importance of the color photographs for field id cannot be emphasized enough and I'd have included even more. While doing surveys here I have counted hundreds of individual sea stars and up to sixteen species in less than an hour underwater. Many sites, including shore dives, routinely offer a dozen or more species on a single dive.

The book provides a key to each family with representatives above 200 meters; it takes you to a general family description and individual species accounts. These include description, similar species, distribution, biology and references. The similar species section is new and usually very helpful. The book also lists families and species that occur below 200m as well as those just north or south of the geographic zone covered. Rounding out the species accounts is some basic sea star biology plus a taxonomical checklist, glossary and decent index.

IF I WERE PUBLISHER

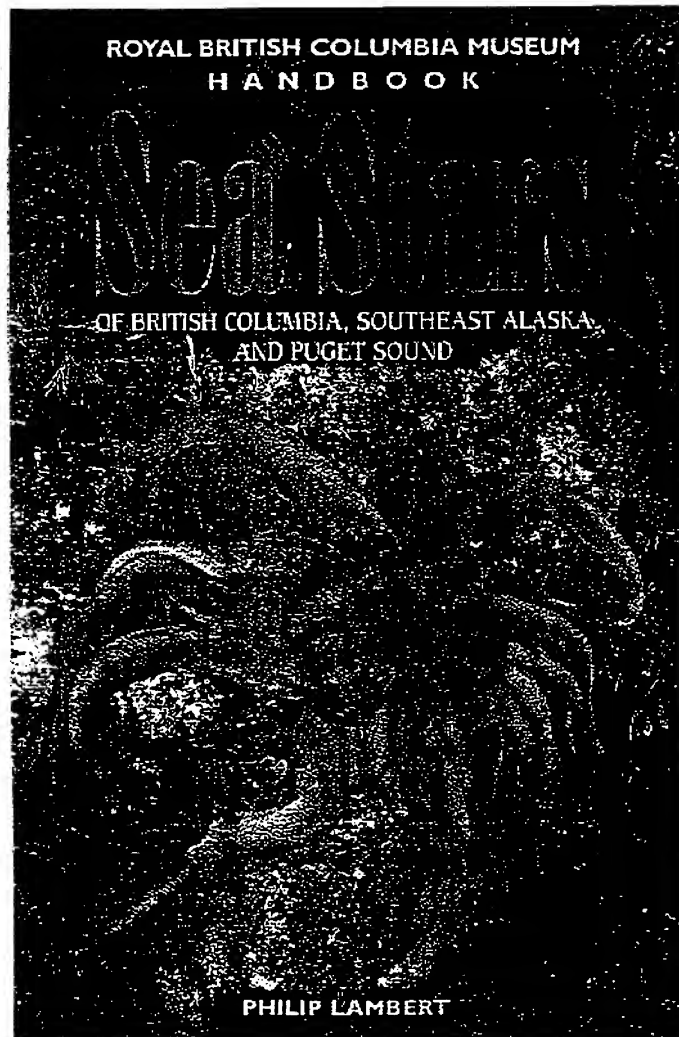
Things wouldn't be that different. About ten percent of this book is dedicated to references which are listed in the species accounts and then expanded in the back. How necessary is such extensive referencing? How much

will they actually be used? This is a question that will continue to plague publishers of books that appeal to both scientists and the general public. I would prefer the book emphasized field identification - the scientific references could be included as an inexpensive handout taken from a continually updated web based bibliography that could be searched, downloaded and printed.

I would also formalize the descriptions of living species a bit more, including a specific heading for color (noting aboral/oral differences as well as tube feet). This information is usually given but can be hard to spot quickly. Finally, I would also include a "sightings" heading with information on the best places and techniques to spot each sea star accessible to divers and beachwalkers.

TAKE IT HOME?

If sea stars fascinate you (and they're pretty hard to resist on this coast) then you'll appreciate this book. It is essential to anyone doing research involving Northwest sea stars and is also a great field guide for divers and seashore naturalists.



The Marine Fauna of New Zealand: Echinodermata: Asteroidea (Sea-stars)

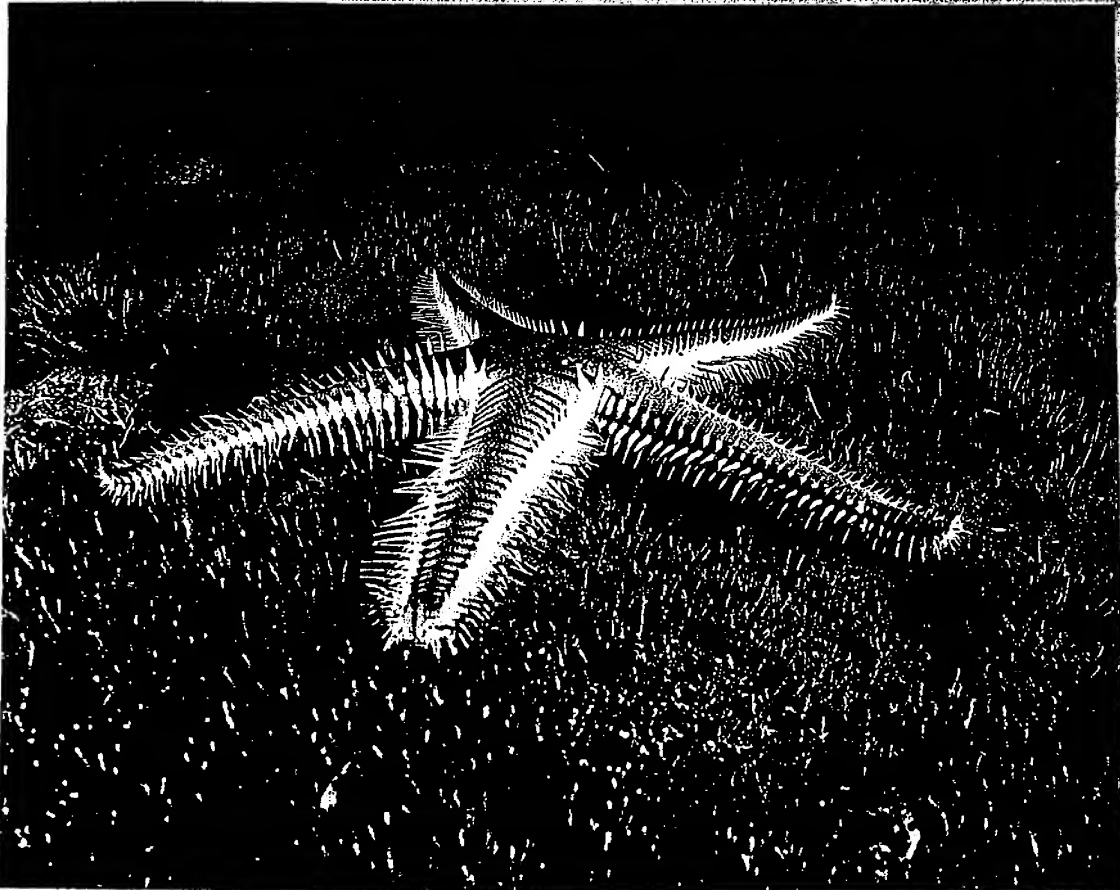
Order Paxillosida

H.E.S. CLARK and D.G. McKNIGHT

Order Notomyotida

D.G. McKNIGHT

National Institute of Water and Atmospheric Research Ltd
(NIWA)
P.O. Box 14-901, Kilbirnie, Wellington
New Zealand



The Marine Fauna of New Zealand
Echinodermata: Asteroidea (Sea-stars)
Order Paxillosida H.E.S. Clark, D.G. McKnight
Order Notomyotida D.G. McKnight

NIWA Biodiversity Memoir 116

2000

INTERNATIONAL CONFERENCE ON FISHERIES, AQUACULTURE AND MARKETING OF SEA URCHINS

Puerto Varas, Chile
March 2003

Organizers

Eduardo Bustos, Instituto de Fomento Pesquero, Chile
Sergio Olave, Instituto de Fomento Pesquero, Chile
John Lawrence, University of South Florida, USA

Organizing Committee

Yukio Agatsuma, Tohoku University, Japan
Michael Barker, University of Otago, New Zealand
Charles-François Boudouresque, Université de la Méditerranée, France
Jose Luis Catoira Gómez, Conselleria de Acuicultura, Spain
Yaqing Chang, Dalian Fisheries University, People's Republic of China
Nils Hagen, Bodø College, Norway
Kazuhiro Kawamura, Econix Co., Ltd., Japan
Maeve Kelly, Scottish Association for Marine Science, United Kingdom
Susan McBride, University of California, USA
Shawn Robinson, Fisheries and Oceans Canada, Canada
Muki Shpigel, National Center for Mariculture, Israel



View from Puerto Varas



For Immediate Release

August 10, 2001

For More Information

Radcliffe Office of Communications

Lilli Leggio: 617-496-3076

Biologist Christiane Biermann Awarded Radcliffe Institute Fellowship

Evolutionary Scientist on Quest to Discover Genes that Generate Species Diversity

The Radcliffe Institute for Advanced Study at Harvard University has awarded a 2001–2002 fellowship to Christiane Biermann, a postdoctoral investigator in evolutionary biology with the Friday Harbor Laboratories at the University of Washington. While at Radcliffe, Biermann will take advantage of the sea urchin genome project to determine the DNA sequences that are located on the chromosome close to a known sperm-egg recognition gene. She hopes to discover novel genes and mechanisms that generate species diversity in sea urchins.

A former Fulbright scholar, Biermann is interested in the diversity of life in the oceans. She combines laboratory and field observations with molecular genetics to investigate the evolution of marine invertebrates, ranging from variation between individuals to the origin of new species. Biermann's work has focused on fertilization barriers and the molecular evolution of a sperm-binding protein in closely related sea urchin species from the North Atlantic and North Pacific oceans.

Biermann completed her undergraduate degree in biology at the University of Münster (Germany) and Kings College (England) and earned her doctorate in ecology

—more—

and evolution from the State University of New York at Stony Brook. She was awarded fellowships and research grants by NATO, the U.S. Antarctic Program, the University of Washington's Friday Harbor Laboratories and the German Academic Exchange Service.

This year, 43 women and men were selected as Radcliffe Institute fellows. The projects were chosen for their quality and long-term impact on society. The Radcliffe Institute for Advanced Study at Harvard University is a scholarly community where individuals pursue advanced work across a wide range of academic disciplines, professions and creative arts. Within this broad purpose, the Radcliffe Institute sustains a continuing commitment to the study of women, gender and society. The Radcliffe Institute was formed in 1999 when Radcliffe College merged with Harvard University.

BIOGRAPHY OF DR. D.B. JAMES

Contributed by Payikat Sahadevan Asha

Mrs. P.S. Asha, T.R.C of CMFRI, Scientist, 115, N.K. Chetty Street, Tuticorin-628001 India.

I am herewith sending a brief biography of Dr. D.B. James, the foremost Echinodermologist from India today, who has been working on echinoderms during the past 40 years and brought out 96 papers on echinoderms for favor of publication in the Echinoderm Newsletter No.26. I worked under his supervision for four years and was trained by him in the taxonomy of sea cucumbers. After his retirement in 2000, I am continuing his work on the hatchery and culture of sea cucumbers.

Dr. Daniel Bhaskar James was born in 1940 at Madras. After early education in Andhra Pradesh, he joined the Andhra University at Visakhapatnam for his B.Sc., B.Sc (Hons.) and M.Sc., degrees. During his M.Sc. course, he was awarded the University Grants Commission Merit Scholarship due to his outstanding academic record. After a brilliant academic career, he joined the Central Marine Fisheries Research Institute at Mandapam Camp (South East Coast of India) towards the end of December 1962 as a Senior Research Scholar of the Government of India under the supervision of late Dr. S. Jones who was the Director of the Institute at that time. At his suggestion, he took up studies on Echinoderms, which remains as a passion for him till today. He collected Echinoderms all along the Indian coast, The Gulf of Mannar, The Palk Bay, The Andaman and Nicobar Islands and from The Lakshadweep (Laccadives). He worked on echinoderms collected from the Gulf of Suez and the Northern Red Sea and published a detailed paper with Dr. John S. Pearse. He also worked on the echinoderms collected by the TE VEGA of the International Indian Ocean Expedition from the Red sea, Borneo, New Britain and the Solomon Islands and listed them in the Catalogue of echinoderms in the Reference Collections of Central Marine Fisheries Research Institute. He did works on taxonomy, zoogeography, ecology, conservation and management, parasites and animal associations, biotoxicity, Beche-de-mer industry, development, hatchery and culture of echinoderms. He described one new family, two new genera, five new species and several new records from the seas around India. The Andhra University awarded him the Ph.D. degree in 1979 based on his thesis on the Systematics of some shallow water asteroids, spheroids, and holothuroids of the Indian Seas.

He is the foremost Echinodermologist from India today. As an International Expert on echinoderms, he worked as FAO Consultant in the Maldives in seacucumber culture. He was involved in research, teaching, training and consultancy. Under his leadership, seed of sea cucumber *Holothuria scabra* was produced for the first time in 1988 at Tuticorin Research Centre of CMFRI. Now the techniques developed by him for seed production of sea cucumber have been adopted in Australia, Indonesia, Maldives and Solomon Islands. He served as a Convenor for the First National Workshop on Beche-de-mer in 1989 and conducted training programme for the fishermen on the improved methods of handling and processing of sea cucumbers for export in 1992. He trained a foreign scientist from Marine Science and Resources

Research Centre, Aden on resources, processing, hatchery and culture of sea cucumbers in 1992. He conducted Group Discussion on Research and Development of Indian Beche-de-mer industry in 1994. He received the Aquaculture Award instituted by the Marine Products Export Development Authority of India for his pioneering efforts on sea cucumber culture in 1995. He also received a special Award from the Fisheries Technocrats Forum, Madras for his outstanding contribution to fishery science in 1999. He was nominated as Member Secretary for the Beche-de-mer Committee by the Ministry of Agriculture, New Delhi to examine whether the ban imposed by the Government of India in 1982 to export processed sea cucumber below 75 mm in length can be lifted. He also conducted a training Programme on Farming of sea cucumbers at Kavaratti Island (Lakshadweep) under the TTC programme in 1999. He was a member of teaching Faculty for the Post Graduate programme in Mariculture and took classes regularly for the M.Sc., M.F.Sc. and Ph.D. students.. He served as examiner for the M.Sc., M.F.Sc., M.Phil. and Ph.D degree by the Andhra, Madras, Madurai Kamaraj and M.S. Universities. He is a life Member of the Marine Biological Association of India and the Andaman Science Association of India.

He had the pleasure and privilege of corresponding with the giants in the field like late Prof. H. Matsumoto, Drs. Albert Panning and Elisabeth Diechman. Prof. Matsumoto sent many of his publications and wrote in 1963 that some of his papers were published half a century ago: He was kind to make a copy of his monograph of Japanese Ophiuroidea (1917) and sent it to him. Dr. Panning sent many of his valuable papers and his revision of the genus *Holothuria* on loan and corrected his first paper, which was later published. Dr. Elisabeth Diechman not only sent a complete set of her papers but gone through some of his papers and offered valuable comments. Among living eminent personalities, Dr. David L.Pawson of the U.S. National Museum has gone through some of his papers and offered constructive criticism. He has sent many of his publications on echinoderms for which he is grateful. Maximum help was received from Miss A.M.Clark formerly of the British Museum. She sent a complete set of her reprints including her valuable Monograph on Shallow water Indo- West Pacific Echinoderms published along with Dr. Frank F. Rowe. She also sent her other big books on Echinoderms of Southern Africa and Echinoderms of Southern China. She also made available some of the rare most British Museum Publications. She has critically gone through many of his papers and offered valuable comments. She also wrote large number of letters from time to time clarifying many of the taxonomic points raised by him. These letters are carefully preserved for posterity, since there is nothing personal except for one or two personal remarks at times, often humorous: He is most grateful to her for her kindness, courtesy and help. His special thanks are also due to Dr. Frank F. Rowe formerly of the British Museum and the Australian Museum for not only sending many of his valuable publications on holothurians and asteroids but also identifying some of the holothurians, which enabled him to publish later. Finally he is thankful to Mrs. L.M. Marsh formerly of the Western Australian Museum for clarifying many of the points on asteroids and also for sending many of her valuable papers. Apart from the persons mentioned above he is grateful to Echinodermologists all over the world for not only sending their publications but encouraging him in his formative years. The list is too long to be mentioned here but he salutes all of them for their kindness and co-operation. But without the sustained and generous help received from Miss. Clark and others it would not have been possible for him to make progress in the study of echinoderms.

He loves to present papers in seminars, symposia and workshops and take active part in group-discussions and to deliver special lectures. After retirement he is devoting his time to write Monographs on the five classes of echinoderms from the seas around India. He has completed the typescript on the monographs on asteroids and at present he is working on the second monograph on holothurians. He is also looking for suitable publishers for his monographs: In his spare time he is helping Ph.D. students and research institutions in the identification of echinoderms, correcting drafts for thesis, acting as referee for scientific papers, attending scientific meetings and delivering special lectures on request.

On his personal characters, I am sincere to mention that he is simple, unassuming, ever ready to help any one who approaches him. A deeply religious and devout person who wants to help the poor. His hobbies include coin and stamp collections, reading English classics and archaeology. He is married and has two sons and two daughters.

Complete list of his publications on echinoderms is given below. Those who are interested in getting a set, may please contact him at : No. 13, Bharathiyar Street, Mehta Nagar, Madras-29 or E-mail: baskar_james@yahoo.com

LIST OF PUBLICATIONS OF DR. D.B. JAMES ON ECHINODERMS

1. James, D.B. 1967. *Phyllophorus (Phyllophorella) parvipedes* Clark (Holothuroidea), a new record to the Indian Seas. *J. mar. biol. Ass. India*, 7(2):325-327.
2. _____ 1968a. Studies on Indian Echinoderms - 1. Re-description of the echinoid *Breynia vredenburgi* Anderson from Andaman sea with emended description. *Ibid.*, 8(2):76-81.
3. _____ 1968b. Studies on Indian Echinoderms - 2. The holothurian *Stolus buccalis* (Stimpson) with notes on its systematic position. *Ibid.*, 8(2):285-289.
4. _____ 1969. Catalogue of echinoderms in the reference collection of the Central Marine Fisheries Research Institute. *Bull. Cent. Mar. Fish. Res. Inst.*, 7:51-62.
5. James, D.B. and R.S. Lal Mohan. 1969. Bibliography of the Echinoderms of the Indian Ocean. *Ibid.*, 15: 1-43.
6. Jones, S. and D.B. James. 1970. On the Stiliferid gastropod in the cloacal chamber of *Holothuria atra* Jaeger. *Proc. Sym. Mollusca.*, Pt.3:799-804.
7. James, D.B. and J.S. Pearse. 1971. Echinoderms of the Gulf of Suez and Northern Red Sea. *J. mar. biol. Ass. India*, 11(1 & 2):78-125.
8. _____ 1971b. Studies on Indian Echinoderms-3. *Ophiarthrum pictum* (Muller & Troschel), a new record from the Indian Ocean with additional notes on the species. *J. mar. biol. Ass. India*, 12:136-138.
9. _____ 1971c. Studies on Indian Echinoderms-4. On the brittle star *Amphioplus gravelyi* sp. nov., and *Amphioplus depressus* (Ljungman) from the Indian coasts. *Ibid.*, 12:139-143.

10. James, D.B. 1973a. *Beche-de-mer* resources of India. *Proc. Sym. Living Resources*. pp. 706-711. Organised by C.M.F.R.I, Cochin.
11. _____ 1973b. Note on the development of the asteroid *Asterina burtoni* Gray. *J.mar.biol.Ass.India*, **14**(2):883- 884.
12. _____ 1973c. Studies on Indian Echinoderms-5. New and little known Star fishes from the Indian seas. *Ibid.*, **15**(2):556-559.
13. _____ 1978. Studies on Indian Echinoderms-6. Re-description of two little known holothurians with a note on an early juvenile of *Holothuria scabra* Jaeger from Indian Seas. *Ibid.*, **18**:55-61.
14. _____ 1980. History of Echinodermology of Indian Ocean. *Ibid.*, **18**(2):298-309.
15. _____ 1983. Sea Cucumber and Sea Urchin resources, *Bull. Cent. Mar. Fish. Res. Inst.*, **34**:85-93.
16. _____ 1981a. Studies on Indian Echinoderms-7. On a new family Labidodematidae (Holothuroidea : Aspidochirotida) with a detailed description of *Labidodemias rugosum* (Ludwig) from the Andamans. *J. mar.biol.Ass.India*, **23**(1&2):82-85.
17. _____ 1981b. Studies on Indian Echinoderms-8. On a new genus *Ophioelegans* (Ophiuroidea: Ophiuridae) with notes on *Ophiolepis superba* H.L.Clark, 1938. *Ibid.*, **23**(1&2):15-18.
18. _____ 1981c. Book Review-Echinoderms: Present and Past. *Ibid.*, **23**(1&2): 223.
19. _____ 1982a. Studies on Indian Echinoderms-9. *Ophionereis andamanensis* sp. nov., (Ophiuroidea : Ophionereidae) from Port Blair, Andamans. *Ibid.*, **24** (1&2): 33-35.
20. _____ 1982b. Studies on Indian Echinoderms - 10. *Ophiocoma anaglyptica* Ely (Ophiuroidea :Ophiocomidae), a new record from the Indian Ocean with notes on other species of *Ophiocoma* from Indian Seas. *Ibid.*, **24** (1&2):36-41.
21. _____ 1982c. Studies on Indian Echinoderms-11. On *Protankyra tuticorensis* sp.nov., and other apodus holothurians from Indian Seas. *Ibid.*, **24**(1&2):92-105.
22. _____ 1982d. Ecology of intertidal echinoderms of the Indian Seas. *Ibid.*, **24** (1 & 2):124-129.
23. _____ 1983. Research on Indian Echinoderms-A review. *Ibid.*, **25** (1 & 2):91-108.
24. James, D.B. 1984. Studies on Indian Echinoderms-15. On *Psolus mannarensis* sp. nov., and other Dendrochirotids from Indian seas. *Ibid.*, **26** (1 & 2) : 109-122.
25. Rao, D.S., D.B. James, K.G. Girijavallaban, S.Muthuswamy and M.Najmuddin. 1985. Biototoxicity in Echinoderms. *Ibid.*, **27** (1&2) : 88-96.
26. Rao. D.S., D.B. James, K.G. Girijavallaban, S. Muthuswamy and M.Najmuddin. 1985. Bioactivity in Echinoderms. *Mar. Fish. Infor. Serv., T & E. Ser.*, No.63:10 -12.
27. James. D.B. 1986a. Zoogeography of shallow-water Echinoderms of Indian seas. In : P.S.B.R. James (Ed.). *Recent Advances in Marine Biology*. Today and Tomorrow's Printers and Publishers, New Delhi. pp.569-591.
28. _____ 1986 b. The holothurian resources. *R & D. Series No.10 For Marine Fisheries Resources and Management. CMFRI, Cochin*. 1986. pp.4.
29. _____ 1986c. Quality improvement in *Beche-de-mer*. *Seafood Export Journ.*, **18**(3)

- :5-10.
30. _____ 1986e. Studies on Indian Echinoderms-12. *Holothuria (Acanthotrapeza) pyxis* Selenka, an interesting holothurian from the Andamans. *J. Andaman Sci. Ass.*, 2 (1) : 34-36.
 31. _____ 1986f. Studies on Indian Echinoderms -13. *Phyrella fragilis* (Ohshima) (Echinodermata : Phyllophoridae), a new record from the Indian Ocean with notes on its habits. *Ibid.*, 2(1): 37-38.
 32. James.D.B. 1986h. Holothurian toxin as a poison to eradicate undesirable organisms from fish farms. *Proc. Sym. Coastal Aquaculture*, 4: 1339-1341. Organised by Marine Biological Association of India, Cochin.
 33. James.D.B. 1987d. Prospects and Problems of *Beche-de-mer* industry in Andaman and Nicobar islands. *Proc.Sym. Management of Coastal Ecosystems and Oceanic Resources of Andamans*. pp. 110-113. Andaman Science Association, Port Blair.
 34. James, D.B. 1988a. Boring and fouling echinoderms of Indian waters. In: *Marine Biodeterioration*. Oxford and IBH Publishing Co. Pvt. Ltd. pp.227-238.
 35. _____ 1988b. *Ophiocoma doderleni* Loriol a new record of brittle star from Andamans. *J. Andaman. Sci. Ass.*, 4 (2) : 139-140.
 36. _____ 1988c. Problems of *Beche-de-mer* industry in Tamil Nadu and the recent development in breeding of Sea cucumbers. paper Presented at the *Workshop on Research and Development in Marine Fisheries in Tamil Nadu, Madras*. September 13-14, 1988. 5pp.
 37. _____ 1988h. Echinoderm fauna of the proposed National Marine Park in the Gulf of Mannar. *Proc.Sym. Endangered Marine Animals and Marine Parks.*, pp.: 403-406.
 38. James.D.B., M.E.Rajapandian, B.K.Baskar and C.P.Gopinathan. 1988. Successful induced spawning and rearing of the holothurian *Holothuria (Metriatyla) scabra* Jaeger at Tuticorin. *Mar.Fish.Infor.Serv., T & E Ser.*, No.87: 30 - 33.
 39. James, D.B. 1989a. *Beche-de-mer* its resources, fishery and industry. *Ibid.*, No. 92:1-35.
 40. _____ 1989b. *A handbook on Beche-de-mer*. Issued on the occasion of the workshop on *Beche-de-mer*, at Mandapam camp during February. 23-25, 1989. Central Marine Fisheries Research Institute, Cochin. pp.33 (in Tamil with English summary).
 41. _____ 1989a. Echinoderms of Lakshadweep and their zoogeography. *Bull. Cent. Mar. Fish. Res. Inst.*, 43 : 97-144.
 42. _____ 1989b. *Beche-de-mer* resources of Lakshadweep. *Ibid.*, 43: 144-149.
 43. Lal Mohan, R.S., D.B.James and S.Kalimuthu. 1989. Mariculture potentials. *Ibid.*, 43 : 243-247.
 44. Pillai, C.S.G., D.B.James and G.Gopakumar. 1989. *Report on the survey of coral reefs, bait fishes and Acanthaster planci in the Marine National Park and adjacent waters in South Andamans*. pp.1-14. Report to the Andaman Administration.
 45. James, D.B. 1990. Sea urchin roe-A potential resource for export. *Seafood Export*

- Jour.*, **21** (6) : 26-36.
46. James, D.B. , C.S.Gopinadha Pillai and G. Gopakumar. 1990. A case study of infestation of *Acanthaster planci* in Andaman waters. *Mar. Fish. Infor. Serv., T&E Ser.*, No. **106** : 1-3.
 47. James, D.B. 1991. Research, conservation and management of edible holothurians and their impact on the *Beche-de-mer* industry. *Bull. Cent. Mar. Fish. Res. Inst.*, **44** (3): 648-661.
 48. Rao, D.S., D.B.James, C.S.Gopinadha Pillai, P.A.Thomas, K.K. Appukuttan, K.G.Girijavallabhan, C.P.Gopinathan, S.Muthusamy and M. Najmuddin. 1991. *Bioactive compounds from marine organisms*. Oxford and IBH Publishing Co. Pvt. Ltd., pp. 367-371.
 49. James, D.B. 1991. Echinoderms of the Marine National Park, South Andamans. *J.Andaman Sci. Ass.*, **7** (2): 19-25.
 50. James, D.B. 1993a. Part II. Sea Urchin Culture. **In** : *Sea Weed, Sea Urchin and Sea Cucumber. Handbook on Aquafarming*. pp. 23-30. The Marine Products Export Development Authority, Cochin.
 51. _____ 1993b. Part III. Sea cucumber culture. **In**: *Sea Weed, Sea Urchin and Sea Cucumber. Handbook on Aquafarming*. pp. 33-47. The Marine Products Export Development Authority, Cochin.
 52. _____ 1993c. Sea cucumber. *Technical paper presented at the Business Session of INDAQUA, Madras*. pp. 3.
 53. James, P.S.B.R. and D.B.James. 1993. Ecology, breeding, seed production and prospects for farming of sea cucumbers from the seas around India. *Fishing Chimes*, **13** (3) : 24-34.
 54. James, D.B., M.Kathirvel, K.Ramadoss and A.Chellam. 1993. The spawning of the holothurian *Actinopyga mauritiana* (Quoy and Gaimard) on board FORV Sagar Sampada. *J.mar.biol.Ass.India.*, **35** (1 & 2) : 220- 221.
 55. James, D.B., A.D.Gandhi, N.Palaniswamy and J.X.Rodrigo. 1994. Hatchery techniques and culture of the sea cucumber *Holothuria scabra*. *CMFRI Spl.Publ.*, No. **57**: 1-32.
 56. James, D.B. 1994a. An annotated bibliography on Sea Cucumbers. *Ibid.*, No.**58**:1-80.
 57. _____ 1994b. Seed production in sea cucumbers. *Aqua International*, **1** (9): 15-26.
 58. _____ 1994c. Holothurian resources from India and their exploitation. *Bull. Cent. Mar. Fish. Res. Inst.*, **46** : 27-31.
 59. _____ 1994d. Zoogeography and systematics of holothurians used for *Beche-de-mer* in India. *Ibid.*, **46** : 34-36.
 60. _____ 1994e. Ecology of commercially important holothurians of India. *Ibid.*, **46**: 37-38.
 61. _____ 1994f. A review of the hatchery and culture practices in Japan and China with special reference to possibilities of culturing holothurians in India. *Ibid.*, **46** : 63-65.
 62. _____ 1994g. Improved methods of processing holothurians for *Beche-de-mer*. *Ibid.*, **46** : 71-75.
 63. _____ 1994h. *Report on the resources of commercially important sea cucumbers of Lakshadweep, their exploitation and management*. pp. 1-10. Report to

- the Lakshadweep Administration.
64. James, D.B., and P.S.B.R. James. 1994. Hand Book on Indian Sea Cucumber. *CMFRI Spl. Publ.*, No. 59: 1-46.
 65. James, D.B., A.D.Gandhi and N. Palaniswamy. 1993. Sea ranching of sea cucumbers. *Mar. Fish. Infor. Serv., T & E Ser.*, No. 124: 15-17.
 66. James, P.S.B.R. and D.B.James 1994a. Management of *Beche-de-mer* industry in India. In: K.Rengarajan and D.B.James (Eds.). Proceedings of the National Workshop on *Beche-de-mer*. *Bull. Cent. Mar. Fish. Res. Inst.*, 46: 17-22.
 67. _____ 1994b. Conservation and management of sea cucumber resources of India. *Ibid.*, 46 : 23-26.
 68. James, D.B., M.E.Rajapandian, C.P. Gopinathan and B.K.Baskar. 1994. Breakthrough in induced breeding and rearing of the larvae and juveniles of *Holothuria (Metriatyla) scabra* Jaeger at Tuticorin. *Ibid.*, 46: 66-70.
 69. James, D.B. and B.K.Basker. 1994. Present status of the *Beche-de-mer* industry in the Palk Bay and the Gulf of Mannar. *Ibid.*, 46: 85-90.
 70. James, D.B. and M.Ali Manikfan. 1994. Some remarks on the present status of *Beche-de-mer* industry of Maldives and its lessons for the Lakshadweep. *Ibid.*, 46:101-105.
 71. _____ 1995b. Taxonomic studies on the species of *Holothuria* (Linnaeus, 1767) from the seas around India. Part. 1. *J.Bombay. Nat. Hist. Soc.*, 92(1): 43-62.
 72. _____ 1995c. Taxonomic studies on the species of *Holothuria* (Linnaeus, 1767) from the seas around India. Part 2. *Ibid.*, 92 (2): 190-204.
 73. _____ 1995e. Animal associations in echinoderms. *J. mar. biol. Ass. India*, 37 (1 & 2): 272-276.
 74. James, D.B. and M.Badrudeen. 1995. Deep water Red Fish - a new resource for the Indian *Beche-de-mer* industry. *Mar. Fish. Infor. Serv., T & E Ser.*, No. 137: 6-8.
 75. James D.B. 1996a. Culture of sea cucumbers. *Bull. Cent. Mar. Fish.Res. Inst.*, 48: 120-126.
 76. _____ 1996b. Part VII. Conservation of sea cucumbers. In: N.G. Menon and C.S.G. Pillai (Eds.) *Marine bio-diversity, conservation and management*. Central Marine Fisheries Research Institute, Cochin-14. pp.80-88.
 77. _____ 1996c. *Inception report of Dr. D.B.James, FAO Consultant for Seacucumber culture in Laamu atoll, Maldives from 12th to 22nd December, 1995.* (FAO/TCP/MDV/4452). 28 pp.
 78. _____ 1996 d. Prospects for the culture of sea cucumbers in India. In: *Sustainable Aquaculture. Proc. National Conference.* (Ed.). S.Ramachandran. pp. 189-199. Anna University, Madras.
 79. _____ 1996e. Prospects for hatchery and culture of sea cucumbers in India. *Proceedings of the Seminar on Fisheries-A multibillion dollar industry.* pp. 123-135. Aquaculture Foundation of India and Fisheries Technocrats Forum, Madras.
 80. _____ 1996f. Notes on the family Goniasteridae (Echinodermata : Asteroidea) from the Indian Seas. *J. mar. biol. Ass. India.* 38 (1&2) : 133-138.
 81. James, D.B., A.J. Lordson, W.G. Ivy and A.D. Gandhi 1996. Experiments on rearing

- of the juveniles of *Holothuria scabra* Jaeger produced in the hatchery. *Proc. Sym. Aquaculture for 2000 A.D.* (Ed.). Samuel Paul Raj pp.207-214 Madurai Kamaraj University, Madurai.
82. James, D.B. and K.J. Mathew. 1996. On *Sterechinus antarcticus* Koehler (Camerodonta : Echinoidea : Echinodermata) collected from coastal waters of Antarctica off Queen Maud Land. *J.mar.biol.Ass.India.*, **38** (1&2):139-141.
 83. James, D.B. 1997. Sea cucumber hatchery and culture prospects. *National Aquaculture Week*. 6 pp.
 84. James, D.B. and M.Badrudeen. 1997. Observations on the landings of the sea cucumber *Holothuria spinifera* at Rameswaram by *Chanku Madi*. *Mar. Fish. Infor. Serv., T & E Ser.*, No.149: 6-8.
 85. James, D.B. 1998 a. A note on the growth of the juveniles of *Holothuria scabra* in concrete ring. *Ibid.*, No. **154**: 16.
 86. _____ 1998 b. Sea cucumber hatchery and culture prospects. *Proc. Workshop National Aquaculture Week*. pp. 141 – 143. Aquaculture Foundation of India, Chennai.
 87. _____ 1998c. On the occurrence of the gastropod parasite *Prostilifer* sp. on the holothurian *Holothuria scabra* Jaeger at Tuticorin. *Mar. Fish. Infor. Serv., T & E Ser.*, No. **157**: 26.
 88. _____ 1998d. Ecological significance of echinoderms of the Gulf of Mannar. *Workshop on Coastal Biodiversity of Gulf of Mannar*. Organised by M.S. Swaminathan Research Foundation, Chennai. Feb. 10-11, '98. Pp.118 - 128.
 89. _____ 1998. On a little known holothurian *Stichopus vastus* Sluiter with notes on other species of *Stichopus* from the seas around India. *Mar.Fish.Infor.Serv., T&ESer.*, NO.158:12-15.
 90. _____ 1998. *Holothuria (Mecrothele) fuscogilva* Cherbonnier, a new record from India with a note on its exoptential processing *Ibid.*, 158:15-16.
 91. _____ 1999. Hatchery and culture technology for the sea cucumber *Holothuria scabra* Jaeger in India. *Naga* 22(4): 12-16.
 92. James, D.B. and G.Ruparani 1999. New resource for the Indian *Beche-de-mer* industry and its management. *Proc.Fourth Indian Fisheries Forum*. 385-388.
 93. James, D.B. 1999. Abnormal asteroids from the seas around India. *Mar. Fish. Infor. Serv., T&E Ser.*, no.159:21-22.
 94. _____ 1999. *Holothuria (Thymiosycia) arenicola* Semper a rare holothurian from the Gulf of Mannar. *Ibid.*, 161:15.
 95. _____ 2000. Sea cucumbers. In: *Marine Fisheries Research and Management*. V.N. Pillai and N.G. Menon (Editors). Central Marine Fisheries Research Institute, Cochin. pp. 124-151.
 96. James, D.B., A.Chellam and P.S.Asha 2001. The early development of the starfish *Pentaceraster regulus* (Muller & Troschel) from Tuticorin. *Ibid.*, 167:12-13.

☆☆☆☆☆ RECENT ECHINODERMS PUBLICATIONS ☆☆☆☆☆
AND PAPERS IN PRESS

Abassi, Y.A., D.J. Carroll, A.F. Giusti, R.J. Belton, and K.R. Foltz. 2000. Evidence that Src-type tyrosine kinase activity is necessary for initiation of Ca release at fertilization in sea urchin eggs. *Dev. Biol.*, 218:206-219.

Arakaki, Y., and J.D. Kusen. 2000. The Echinoderm Fauna (Asteroidea, Echinoidea and Holothuroidea) of Indonesia's Shallow Waters. Meio University, Okinawa, pp. 1-20.

Asha, P.S., and J.X. Rodrigo. Spawning and larval rearing of the sea cucumber *Holothuria (Theelothuria) spinifera* at Tuticorin. (In press).

Ausich, W.I. and T.W. Kammer. 2001. The study of crinoids during the 20th century and the challenges of the 21st century. *Journal of Paleontology*, 75: in press.

Barbosa-Ledesma, I.F., F.A. Solís-Marín, and A. Laguarda-Figueras. 2001. New records for cidaroid echinoids (Echinodermata: Echinoidea) of the Gulf of Mexico, Mexico. *International Journal of Tropical Biology and Conservation*. P.721.

Bauer, J.C., and C.M. Young. 2000. Epidermal lesions and mortality caused by vibriosis in deep-sea Bahamian echinoids: a laboratory study. *Dis. Aquat Org*, 39: 193-199.

Beaver, Harold H., Alexander J. Fabian, and Mark Palatas. 2000. Summit structures in Mississippian blastoids. *Jour. Paleontology*, 74(2):247-253.

Beckenbach, K., A. Scouras, A. Arndt, and M.J. Smith. 2000. The mitochondrial genome of the ophiuroid, *Ophiopholis aculeata*; The echinoderm classes and early phylogeny not so simple after all.

Beer, A. J., C. Moss, and M. Thorndyke. 2001. Development of serotonin-like and SALMFamide-like immunoreactivity in the nervous system of the sea urchin *Psammechinus miliaris*. *Biol. Bull.*, 200:268-280.

Benitez Villalobos, F. Comparación de la comunidad de equinodermos asociada a dos localidades de las Bahías de Huatulco. *Ciencia y Mar*. Universidad del Mar (Accepted, but not published yet).

Bianchi, C.N., C. Morri, G. Sartoni, and P. Wirtz. Sublittoral epibenthic communities around Funchal (Island of Madeira, NE Atlantic): an update of previous information and a comparison with the Mediterranean Sea. *Bol. Mus. Municip. Funchal*. Sup. no. 5, 59-80

Bianchi, C.N., R. Haroun, C. Morri, and P. Wirtz. 2000. The subtidal epibenthic communities off Puerto

del Carmen (Lanzarote, Canary Islands). *Arquipélago*, Supl. 2, 145-156.

Birenheide, R., K. Yokoyama, and T. Motokawa. 2000. Cirri of the stalked crinoid *Metacrinus rotundus*: Neural elements and the effects of cholinergic agonists on mechanical properties. *Proc. R. Soc. Lond. B*, 266:7-16.

Bitter, R. 2000. Nicho Complementario en Tres Especies de Asteroideos del Género *Astropecten*. *Croizatia*, 1(1):31-37.

Bitter, R. 1999. Benthic Communities Associated to *Thalassi testudinum* (Hydrocharitaceae) at Three Localities of Morrocoy National Park, Venezuela. *Revista De Biología Tropical*, 47(3):443-452.

Bitter, R. Inventario y Distribución de Moluscos Marinos en Las Costas del Estado Falcón. *Acta Biologica Venezuelica* (in progress).

Bitter, R. Trophic Structure and Functional Groups in Communities Associated to *Thalassia* Beds on Western Venezuelan Coasts. *Journal of Coastal Research* (in progress).

Bitter, R. 1997. Dieta maravillosa de asteroideos; malacófagos: origen de una colección de referencia. *Memorias VII Congreso Latinoamericano sobre Ciencias del Mar*. Santos, Brasil.

Bitter, R.A. 2000. Estructura trófica y grupos funcionales en comunidades bónicas asociadas a campos de *Thalassia* en el occidente de Venezuela. *Resúmenes XI Simposio Ibérico de Estudios del Bentos Marino*. Málaga, España.

Brower, J.C. 2000. Seriation of an original data matrix as applied to biostratigraphy, p.72-85. *In*: H.S. Pandalai and P.K. Sarawati (editors), *Geological data analysis: Statistical methods*, (Volume of papers in honor of Professor B.K. Sahu), *Recent Researches in Geology*, v. 18, Hindustan Publishing Corporation (India), New Delhi.

Brower, J.C. 2000. In conjunction with C.R. Newton and N. Bonuso. Statistical methods for determining community structure and stasis: Devonian Hamilton Group, Central New York. *Geological Society of America Abstracts Volume for 2000*, 32(7): A96.

Brower, J.C. 2001. Flexible crinoids from the Upper Ordovician Maquoketa Formation of the northern Midcontinent and the evolution of early flexible crinoids. *Journal of Paleontology*, 75: 370-382.

Brower, J.C. 2001. In conjunction with D.F. Merriam. Thematic map analysis using multiple regression. *Mathematical Geology*, 33(3): 353-368.

Brower, J.C. 2001. *Cupulocrinus angustatus* (Meek and Worthen), a cladid crinoid from the Upper Ordovician Maquoketa Formation of the northern midcontinent of the United States. *Journal of Paleontology*. (in press).

Brower, J.C. 2001. *Quintuplexacrinus*, a new cladid crinoid genus from the Upper Ordovician Maquoketa Formation of the northern midcontinent of the United States. *Journal of Paleontology*. (in press).

- Brower, J.C. 2001. In conjunction with C.R. Newton and W.B. Newman. Quantitative paleoecology of a transition from basinal black shale to shelf siltstone: upper part of Marcellus Formation (Hamilton Group, central New York). *Palaeogeography, Palaeoclimatology, Paleoecology*. (in press).
- Byrne, M., and A. Cerra. 2000. Lipid dynamics in the embryos of *Patiriella* species with divergent modes of development. *Develop. Growth and Differ.*, 42: 79-86.
- Carroll, D.J., and S.C. Kempf. 1990. Laboratory culture of the aeolid nudibranch *Berghia verrucicornis* (Mollusca, Opisthobranchia): Some aspects of its development and life history. *Biol. Bull.*, 179:243-253.
- Carroll, D.J. and S.C. Kempf (1994). Changes occur in the central nervous system of the nudibranch *Berghia verrucicornis* (Mollusca, Opisthobranchia) during metamorphosis. *Biol. Bull.*, 186:202-212.
- Carroll, D.J., Dikegoros, E., Koppel, D.E., and A. E. Cowan (1995). Surface expression of the pre b subunit of fertilin is regulated at a post-translational level in guinea pig spermatids. *Dev. Biol.*, 168(2):426-437
- Carroll, D.J., and L.A. Jaffe. 1995. Proteases stimulate fertilization-like responses in starfish eggs. *Dev. Biol.*, 170:690-700.
- Carroll, D.J., C.S. Ramarao, L.M. Mehlmann, S. Roche, M. Terasaki, and L.A. Jaffe. 1997. Calcium release at fertilization in starfish eggs is mediated by phospholipase C γ . *J. Cell Biol.*, 138:1303-1311.
- Carroll, D.J., D.T. Albay, M. Terasaki, L.A. Jaffe, and K.R. Foltz. 1999. Identification of PLC γ -dependent and independent events during fertilization of sea urchin eggs. *Dev. Biol.*, 206: 232-247.
- Carroll, D.J., D.T. Albay, K. Hoang, F.J. O'Neill, M. Kumano, and K.R. Foltz. 2000. The relationship between calcium, MAP kinase, and the initiation of DNA synthesis in the sea urchin egg at fertilization. *Dev. Biol.*, 217:179-191.
- Carroll, D.J. 2000. "Sperm egg interactions: sperm-egg binding in invertebrates" in *Encyclopedia of Life Sciences*. Sarah Robertson, managing editor. Macmillan Reference Ltd, London. (solicited article).
- Chang, Y.Q., and Z. C. Wang. 2000. Cross breeding between four species of sea urchins, feasibility and early development of F1 offspring. *Journal of Fisheries of China*, 24(3):211-216.
- Chang, Y.Q., and Z. C. Wang. 1999. Net cage culture at sea in summer, medium culture and land pond culture for transplanted Japanese sea urchin *S. intermedius*. *Journal of China Fisheries Science (in Chinese)*, 6(2):78-82.
- Chang, Y.Q., and Z. C. Wang. 1997. The raft culture of sea urchin, *S. intermedius*. *Journal of Dalian Fisheries University (in Chinese)*, (2):7-14.
- Chang, Y.Q., and Z. C. Wang. 1997. The effects of low salinity and diets on the young sea urchin, *S. intermedius*. *Marine Science (in Chinese)*, 3:1-2.
- Chang, Y.Q., and Z. C. Wang. 1999. Effect of temperature and algae on feeding and growth in sea urchin, *S. intermedius*. *Journal of Fisheries of China (in Chinese)*, 23(1):72-79.

- Chao, S.-M. 2000. New records of sea stars (Asteroidea: Echinodermata) from the continental shelf of Taiwan. *Zoological Studies*, 39(3): 275-284.
- Chao, S.-M. 2000. The irregular sea urchins (Echinodermata: Echinoidea) from Taiwan with descriptions of six new records. *Zoological Studies*, 39(3): 250-265.
- Chiba, Kazuyoshi, Motonori Hoshi, Janet M. Alderton and Richard A. Steinhardt. 1999. Activation of the proteasomes of sand dollar eggs at fertilization depends on the intracellular pH rise. *Dev. Biol.*, 209:52-59.
- Chiba, Kazuyoshi, Tuyoshi Nakano, and Motonori Hoshi. 1999. Induction of germinal vesicle breakdown in a cell-free preparation from starfish oocytes. *Dev. Biol.*, 205:217-223.
- Clark, A.M., and C. Mah. 2001. An index of names of recent Asteroidea - Part 4. Forcipulatida and Brisingida (with addenda for previous parts). *In* *Echinoderm Studies* (M. Jangoux & J.M. Lawrence, eds.), Balkema Rotterdam, pp. 229-347.
- Dautov, S.S. 2000. Species composition, distribution, seasonal dynamics of the echinoderm larvae on an aquatory of the Far east marine state preserve and adjacent area. *Biologiya Morya*, n6.
- Dautov, S. 1995. Elastic spheres in holothuroid larvae. *Inv. Rep. Dev.*
- Dean, J., and A.B. Smith. 1999. Palaeobiology of the primitive Ordovician pelmatozoan echinoderm *Cardiocystites*. *Palaeontology*, 41:1183-1194.
- De Bremaeker, N., Y. Dewael, F. Baguet, and J. Mallefet. 2000. Involvement of cyclic nucleotides and IP3 in the regulation of luminescence of the brittlestar *Amphipholis squamata* (Echinodermata). *Luminescence*, 15: 159-163.
- Deheyn, D., Mallefet, J., and Jangoux, M. 2000. Cytological changes during light production process in dissociated photocytes from the ophiuroid *Amphipholis squamata* (Echinodermata). *Cell Tissue Res.*, 299:115-128.
- Deheyn, D., Mallefet, J., and Jangoux, M. 2000. Evidence of seasonal variation in luminescence performance of *Amphipholis squamata* (Ophiuroidea, Echinodermata): effect of environmental factors. *J. Exp. Mar. Biol. Ecol.*, 245:245-264.
- Deheyn, D., Jangoux, M., and Warnau, M. 2000. Alteration of bioluminescence in *Amphipholis squamata* (Ophiuroidea: Echinodermata) by heavy metal contamination: a field study. *Sci. Tot. Env.*, 247:41-49.
- Deheyn, D., Mallefet, J., and Jangoux, M. 2000. Evidence from polychromatism and bioluminescence that the cosmopolitan ophiuroid *Amphipholis squamata* (Echinodermata) might not represent a unique taxon. *C. R. Acad. Sci. Paris*, 323:499-509.
- Deheyn, D., Mallefet, J., and Jangoux, M. 2000. Expression of bioluminescence in *Amphipholis squamata* (Ophiuroidea: Echinodermata) in presence of various organisms: a laboratory study. *J. mar. biol. Ass., UK*, 80:179-180.

Destombes, R., and G. Breton. (in press). *Platelicrinus campaniensis* nov. gen., nov. sp., Roveacrinidae (Echinodermata, Crinoidea) Campanien des Charentes, France. Bull. Trim. Soc. géol. Normandie et Amis Muséum du Havre, 86.

Dolmatov, I.Yu., and T.T. Ginanova. 2001. Muscle regeneration in holothurians. Microscopic Research and Techniques. (in press).

Domínguez, P. 1999. Early evolution of echinoderms: Class Ctenocystoidea revisited. *In: Echinoderms research 1998*, Candia Carnevali and Bonasoro (Eds.). A.A. Balkema. Rotterdam. 263-268. ISBN 90-5809-102-3.

Domínguez, P., D. Gil, and M. Torres. 1999. Early Rhombifera (Lower Paleozoic Cystoids): morphology and function. *In: Echinoderms research 1998*, Candia Carnevali and Bonasoro (Eds.). A.A. Balkema. Rotterdam. 269-273. ISBN 90-5809-102-3.

Domínguez, P., M.A. Ramos, J.M. Remón, and M. Villena. 1999. Echinoderms from the oceanographic expedition Fauna (Project Fauna Ibérica) and Museo Nacional de Ciencias Naturales Collections. *In: Echinoderms research 1998*, Candia Carnevali and Bonasoro (Eds.). A. A. Balkema. Rotterdam. 449-451. ISBN 90-5809-102-3.

Domínguez, P., D. Gil, and M. Torres. 1999. Hydrodynamic of tecla structures in Glyptocystitida (Rhombiferan Echinoderms). Palaeocological Perspectives on form and function C06:5A/03:S1. EUG 10 Abstract Volume. Journal of Conference Abstracts, 4 (1): p. 278. ISSN: 1362-0886.

Donovan, S.K. 2000. A fore-reef echinoid fauna from the Pleistocene of Barbados. *Caribbean Journal of Science*, 36: 314-320.

Donovan, S.K., and D.A.T. Harper. 2000. The irregular echinoid *Brissus* Gray from the Tertiary of Jamaica. *Caribbean Journal of Science*, 36: 332-335.

Donovan, S.K., and D.-A.C. Rowe. 2000. Spatangoid echinoids from the Eocene of Jamaica. *Journal of Paleontology*, 74: 654-661.

Dupont S., S. Chaufer, É. Poulin, J.-P. Féral, and J. Mallefet. 2000. Is there a link between morphological, physiological and genetic variability of the ophiuroid *Amphipholis squamata* ? *Netherlands J. Zool.*, 50(3):355-364.

Escribano Rodenas, M. Gil Cid, M. D., Domínguez, P., and Silván, E. 1999. Importancia Taxonómica de las zonas orales de los cistoideos diplopóridos. *Temas Geológicos-Mineros ITGE.*, 26 (II):549-551.

Eswaramohan, T., P. Krishnarajah, and V. Arasaratnam. 2000. A search for the digestive enzymes in gut fluid of *Holothuria scabra* Jaeger, 1833 (Echinodermata: Holothuroidea). *Proceedings of Jaffna Science Association*, 8(1): 6.

Etnier, S.A. (in review). Flexural and torsional stiffness in multi-jointed biological beams. *Biological Bulletin*. (This paper reports flexural and torsional stiffness for comatulid crinoid arms, and compares and contrasts these results with values for similar multi-jointed structures).

- Evdokimov, V.V., I.V. Biryukova, and A.V. Evdokimov. Influence of monochromatic light through filters 3C2 and KC-11 on the sea urchins *Strongylocentrotus nudus*. *Journal of Morphology* (in press).
- Evdokimov, V.V, and S.A. Khomyak. 2000. Cyclic changes in the sea urchins *Strongylocentrotus intermedius* gonads and its fertility in the Sea of Japan coastal communities. *Journal of TINRO udk.639.53-639.54*
- Fahl, K., H. Cremer, H. Erlenkeuser, H. Hanssen, J. Hölemann, H. Kassens, K. Knickmeier, K. Kosobokova, M. Kunz-Pirung, F. Lindemann, S. Lischka, E. Markhaseva, V. Petryashov, D. Piepenburg, M.K. Schmid, M. Spindler, R. Stein, K. Tuschling. (In press). The modern system "Laptev Sea" (Arctic Ocean): a synoptic study on sources and fate of organic carbon. *Polarforschung*.
- Fernandez, C., and C.-F. Boudouresque. 2000. Nutrition of the sea urchin *Paracentrotus lividus* (Echinodermata: Echinoidea) fed different artificial food. *Mar. Ecol. Prog. Ser.*, 204: 131-141.
- Flowers, J.M., and D.W. Foltz. 2001. Reconciling molecular systematics and traditional taxonomy in a species-rich clade of sea stars (*Leptasterias* subgenus *Hexasterias*). *Marine Biology* (in press).
- Fujita, T., and G. Hendler. 2001. Description of a new species of *Astrophiura* (Echinodermata: Ophiuroidea) from Tosa Bay, Japan, and several of its remarkable anatomical characteristics. *Deep-Sea Fauna and Pollutants in Tosa Bay*, edited by T. Fujita, H. Saito and M. Takeda, pp. 263-281, National Science Museum Monographs, No. 20, Tokyo.
- Fujita, T., and Y. Liao. 2001. Ophiuroids (Echinodermata) collected in the shallow water of Hainan Island, South China Sea. *Natn. Sci. Mus. Monogr.*, (21): 95-99.
- Fujita, T., B.Y. Zulfigar, M.R.M. Kushairi, B.H.R. Othman, and M. Terazaki. 2001. Asteroids (Echinodermata) collected from Tioman Archipelago, off Mersing, Malaysia. In: Terazaki, M., A. Taira, M. Uematsu, Y. Michida and T. Kaneko, eds. *Proceedings of the 11th JSPS Joint Seminar on Marine Science*. Center for International Cooperation, Ocean Research Institute, University of Tokyo, Tokyo, pp. 316-325.
- Fujita, T., S. Irimura and W.W. Kastoro 2001. Biology of a rare ophiuroid *Ophiocanops fugiens* Koehler, 1922 (Echinodermata) associated with black corals, with notes on the specimens collected from Lembeh Strait, Bitung, Indonesia. In: Terazaki, M., A. Taira, M. Uematsu, Y. Michida and T. Kaneko, eds. *Proceedings of the 11th JSPS Joint Seminar on Marine Science*. Center for International Cooperation, Ocean Research Institute, University of Tokyo, Tokyo, pp. 326-333.
- Fujita, T., M.R.M. Kushairi, B.H.R. Othman, and M. Terazaki. 2000. Asteroids and ophiuroids (Echinodermata) of Tioman Island, Malaysia: a preliminary faunal list based on the collection during the Japan-Malaysia joint survey in August 1999. In: Saadon, M.N., S.A. Abdullah, S.M. Sheriff, N.A. Ariffin, eds. *Proceedings of the 10th JSPS Joint Seminar on Marine and Fisheries Sciences*. Sustainable Utilization of Marine Resources. Kolej Universiti Terengganu, Kuala Terengganu, pp.148-157.
- Fujita, T., and M. Saba. 2000. Asteroids and ophiuroids (Echinodermata) collected in the seas around Takehara, Hiroshima Prefecture, Japan. *Mem. Natn. Sci. Mus.*, (33): 167-174.

- Gahn, F.J. and T.W. Kammer. 2002. The cladid crinoid *Barycrinus* from the Burlington Limestone (early Osagean) and the phylogenetics of Mississippian botryocrinids. *Journal of Paleontology*, in press.
- Gao X. S., and Y.Q. Chang. 1999. Economic sea urchin and culture in China. China Agriculture Press (in Chinese), Beijing.
- Gale, A.S., A.B. Smith, N.E.A. Monks, J.A. Young, A. Howard, D.S. Wray, and J.M. Huggett. 2000. Marine biodiversity through the late Cenomanian- Early Turonian: palaeoceanographic controls and sequence stratigraphic biases. *Journal of the Geological Society*, 157:745-757.
- George, S.B., J.M. Lawrence, A.L. Lawrence, J. Smiley, and L. Plank. 2001. Carotenoids in the adult diet enhance egg and juvenile production in the sea urchin *Lytechinus variegatus*. *Aquaculture*, 199:353-360.
- Gibbons, M.J. et al. 1999. The taxonomic richness of South Africa's marine fauna: a crisis at hand. *S.Afr. J. Sc.*, 95:8-12.
- Gil, M., P. Domínguez, and M. Torres. 1999. Ordovician evolutionary faunas of echinoderms and carroids from Southern Spain. *In: Echinoderms research 1998*, Candia Carnevali and Bonasoro (Eds.). A. A. Balkema. Rotterdam. 276. ISBN 90-5809-102-3.
- Gil, D., and P. Domínguez. 1999. Taxonomic diversity of Lower-Middle Cambrian echinoderms and Carroids from Spain. *In: Echinoderms research 1998*, Candia Carnevali and Bonasoro (Eds.). A. A. Balkema. Rotterdam. 275. ISBN 90-5809-102-3.
- Gil Cid, M.D., and P. Domínguez. 1999. Eocrinoides del Cámbrico español y el origen del pedúnculo en pelmatozoos. *Temas Geológicos-Mineros ITGE.*, 26 (I): 236-238.
- Gil, M., P. Domínguez, M. Torres, and I. Jiménez. 1999. A mathematical tool to analyze radial symmetry organisms and its application to a new camerate from upper ordovician of South Western Spain. *Geobios*, 32 (6): 861-867.
- Gil, M., and P. Domínguez. 1999. Diversidad de equinodermos y Carpoideos en el Cámbrico Inferior y Medio de la península Ibérica. *Coloquios de Paleontología*, 50: 105-116. ISSN: 1132-1660.
- Giusti, A.F., Carroll, D.J., Abassi, Y.A., and Foltz, K.R. 1999. Evidence that a starfish egg Src family tyrosine kinase associates with PLC γ 1 SH2 domains at fertilization. *Dev. Biol.* 208, 189-199.
- Giusti, A.F., D.J. Carroll, Y.A. Abassi, M.T. Terasaki, K.R. Foltz, and L.A. Jaffe. 1999. Requirement of a Src family kinase for initiating calcium release at fertilization. *J. Biol. Chem.*, 274:29318-29322.
- Giusti, A.F., K.R. Foltz, and D.J. Carroll. 1999. "Signal transduction at egg activation" *in Molecular and Cellular Determinants of Animal Development*. Thierry Darribere, editor. Diderot Multimédia, Paris, France.
- Glenn, K.C. The Late Holocene Sedimentary Development of Ashmore Reef, North West Shelf, Australia. (in press).
- Greenwood, A. Seasonality of echinoderm plankton in Lough Hyne Marine Nature Reserve. *Biology and*

Environment: Proceedings of the Royal Irish Academy. (in press).

Greenwood, A. Seasonality and vertical zonation of zooplankton in a semi-enclosed sea lough. JMBA. (in press).

Guettaf, N., G.A. San Martin, and P. Francour. 2000. Interpopulation variability of the reproductive cycle of *Paracentrotus lividus* (Echinodermata: Echinoidea) in the South-western Mediterranean. J. Mar. Biol. Assoc. U.K., 80:899-907.

Hamel, J.-F., C. Conand, D.L. Pawson, and A. Mercier. 2001. The sea cucumber *Holothuria scabra* (Holothuroidea: Echinodermata): Its biology and exploitation as Beche-de-Mer. Pp. 129-223 in A.J. Southward et al. (Eds.) Advances in Marine Biology, Vol. 41, Academic Press, London.

Hamel J.-F., and A. Mercier. 2000. Cuvierian tubules in tropical holothurians: usefulness and efficiency as a defence mechanism. Marine and Freshwater Behavior and Physiology (in press).

Heinzeller, T., and U. Welsch. 2001. The echinoderm nervous system and its phylogenetic interpretation. Pp. 41-75 in G. Roth & M.F. Wulliman (Eds.), "Brain Evolution and Cognition", John Wiley, New York.

Helm, C., J.W.M. Jagt, and M. Kutscher. 1999. Early Campanian ophiuroids from the Hannover area (Lower Saxony, Northern Germany). Berliner geowissenschaftliche Abhandlungen, E30: 161-173, pls 1-3.

Hendler, G., and L.U. Tran. 2001. Reproductive biology of a deep-sea brittle star *Amphiura carchara* (Echinodermata: Ophiuroidea). Marine Biology, 138:113-123.

Hendler, G., and C.J. Bundrick. 2001. A new brooding brittle star from California (Echinodermata: Ophiuroidea: Amphiuridae). Contributions in Science, 486:1-11, Natural History Museum of Los Angeles County.

Hoshi, M., M. Kawamura, Y. Maruyama, E. Yoshida, T. Nishigaki, M. Ikeda, M. Ogiso, H. Moriyama, and M. Matsumoto. 1999. How does the jelly coat of starfish eggs trigger the acrosome reaction in homologous spermatozoa? In: The Male Gamete: From Basic Science to Clinical Applications, ed. Claude Gagnon, pp. 119-125, Cache River Press, Vienna, IL.

Hotchkiss, F.H.C. 2000. On the number of rays in starfish. Amer. Zool., 40:340-354.

Hrincevich, A.W., A. Rocha-Olivares and D.W. Foltz. 2000. Phylogenetic analysis of molecular lineages in a species-rich subgenus of sea stars (*Leptasterias* subgenus *Hexasterias*). American Zoologist, 40:365-374.

Jagt, J.W.M. 1999. Late Cretaceous-Early Palaeogene echinoderms and the K/T boundary in the southeast Netherlands and northeast Belgium - Part 1: Introduction and stratigraphy. Scripta Geologica, 116: 1-57.

Jagt, J.W.M. 1999. Late Cretaceous-Early Palaeogene echinoderms and the K/T boundary in the southeast Netherlands and northeast Belgium - Part 2: Crinoids. Scripta Geologica, 116: 59-255, 46 pls.

Jagt, J.W.M., R.W.J.M. van der Ham, R. Meuris & L. Indeherberge. 1999. A note on *Salenia* gr. *nutrix*

- Peron and Gauthier, 1881 (Echinoidea) from the Maastrichtian type area (southeastern Netherlands, northeastern Belgium). *Journal of Paleontology*, 73: 663-666.
- Jagt, J.W.M. 1999. An overview of Late Cretaceous and Early Palaeogene echinoderm faunas from Liège-Limburg (Belgium, The Netherlands). In: A.V. Dhondt & A.S. Alekseev (eds). D.P. Naidin Festschrift (INTAS 94-1414). *Bulletin de l'Institut royal des Sciences naturelles de Belgique, Sciences de la Terre*, 69 (Suppl. A): 103-118, 2 pls.
- Jagt, J.W.M. 1999. Late Campanian echinoids and crinoids from the Gschlieffgraben (Ultrahelvetic, Austria). *Beiträge zur Paläontologie*, 24: 7-21, pls 1-3.
- Jagt, J.W.M. 1999. Ophiuroid diversity in the type area of the Maastrichtian Stage. In: J.M.J. Vergoossen & P.H. Lambers (eds). *Actual paleontology - paleontology in action: A tribute to Bert Boekschoten*. *Geologie en Mijnbouw*, 78: 197-206, pls 1-4.
- Jagt, J.W.M. 2000. Latest Maastrichtian echinoderm assemblages: shallow-water palaeocommunities from Belgium and the Netherlands. In: 6th International Cretaceous Symposium, August 27 to September 4, 2000, Vienna, Austria, Geozentrum, University of Vienna, Abstracts/List of participants, p. 53.
- Jagt, J.W.M. 2000. Late Cretaceous-Early Palaeogene echinoderms and the K/T boundary in the southeast Netherlands and northeast Belgium - Part 3: Ophiuroids. With a chapter on: Early Maastrichtian ophiuroids from Rügen (northeast Germany) and Mn (Denmark) by Manfred Kutscher & John W.M. Jagt. *Scripta Geologica*, 121: 1-179, 36 pls.
- Jagt, J.W.M. 2000. Late Cretaceous-Early Palaeogene echinoderms and the K/T boundary in the southeast Netherlands and northeast Belgium - Part 4: Echinoids. *Scripta Geologica*, 121: 181-375, 30 pls.
- Jagt, J.W.M. 2000. Late Cretaceous-Early Palaeogene echinoderms and the K/T boundary in the southeast Netherlands and northeast Belgium - Part 5: Asteroids. *Scripta Geologica*, 121: 377-503, 27 pls.
- Jagt, J.W.M. 2000. Late Cretaceous-Early Palaeogene echinoderms and the K/T boundary in the southeast Netherlands and northeast Belgium - Part 6: Conclusions. *Scripta Geologica*, 121: 505-577.
- Jagt, J.W.M., and G.S. Odin. (in press). Campanian-Maastrichtian ophiuroids (Echinodermata) from Tercis-les-Bains (Landes, France) [Chapter C7]. In: Odin, G.S. (ed.). *The Campanian-Maastrichtian Boundary*. Elsevier (Amsterdam): 437-443, 2 pls.
- Jagt, J.W.M., and G.S. Odin. (in press). Campanian-Maastrichtian crinoids (Echinodermata) from Tercis-les-Bains (Landes, France) [Chapter D7]. In: Odin, G.S. (ed.). *The Campanian-Maastrichtian Boundary*. Elsevier (Amsterdam): 669-677, 2 pls.
- Jagt, J.W.M. (in press). *Deckersamphiura vitea*, a new Late Campanian ophiuroid from the Netherlands. *Bulletin de l'Institut royal des Sciences naturelles de Belgique, Sciences de la Terre*, 71.
- Jagt, J.W.M., M.J.M. Deckers, and J. Parren. (in press). Notes on Palaeogene and Neogene echinoderms from the North Sea Basin. Part 1 - An antedonid crinoid from the Miocene of central Limburg, the Netherlands. *Cenozoic Research*.

- Jagt, J.W.M., and M.J.M. Deckers. (in press). Additional note on the comatulid crinoid *Jaekelometra defectiva* Jagt, 1999a (Late Maastrichtian, the Netherlands). *Neues Jahrbuch für Geologie und Paläontologie, Monatshefte*.
- James, D.B., P.S. Asha, M.K. Ram Mohan, and P. Jaiganesh. 1999. Culture of sea cucumbers in shrimp farms- a take off in technology. National Seminar on Development and Transfer of Fisheries Technology. Organised by Fisheries College and Research Institute Tuticorin L.5 (Abstract)
- James, D.B. 2000. Sea cucumbers. *In: Marine Fisheries Research and Management*. V.K. Pillai and N.G. Menon (Editors). Central Marine Fisheries Research Institute, Cochin. pp.124-151.
- James, D.B. 2000. The Enigmatic Echinoderms. Souvenir of Golden Jubilee Staff Club of Tuticorin Research Center of Central Marine Fisheries Research Institute. pp.19-23.
- James, D.B., A. Chellam, and P.S. Asha. 2001. The Early Development of the starfish *Pentaceraster regulus* (Muller & Troschel) from Tuticorin. *Mar. Fish. Infor. Serv., T & E Ser.*, 167:12-13.
- James, D.B. (In press). On some interesting sea cucumbers from the seas around India. *Naga*.
- James, D.W. 2000. Diet, movement, and covering behavior of the sea urchin *Toxopneustes roseus* in rhodolith beds in the Gulf of California, Mexico. *Marine Biology*, 137:913-923.
- Jeyabaskaran, R., and P.S. Lyla. 1996. Krusadai island: Biologist paradise. *Seshyiana*, Vol. 1. No.3, Ministry of Environment and Forests, India, ENVIS Newsletter.
- Jeyabaskaran, R., P.S. Lyla and S. Ajmal Khan, 1996. Present status of Coral Reefs of Gulf of Mannar islands. *Seshyiana* Vol. 1. No.3 ENVIS Newsletter.
- Johnson, K.B., and D.L. Pawson. 2001. A spatangoid larva (Class Echinoidea, Order Spatangoida) metamorphoses into a "typical" regular echinoid (Order Echinoidea). *Gulf of Mexico Science*, December 2001 issue.
- Kammer, T.W. and F.J. Gahn. 2002. Primitive cladid crinoids from the early Osagean Burlington Limestone and the phylogenetics of Mississippian species of Cyathocrinites. *Journal of Paleontology*, in review.
- Kammer, T.W. and N.G. Lane. 2002. Mississippian echinoderms of the U.S. Midcontinent. *Carboniferous of the World, Volume IV*. International Union of Geological Sciences, in press.
- Kammer, T.W. 2001. Phenotypic bradytely in the Costalocrinus-Barycrinus lineage of Paleozoic cladid crinoids. *Journal of Paleontology*, 75:383-389.
- Kammer, T.W. and A.M. Lake. 2001. Salinity ranges of Late Mississippian invertebrates of the central Appalachian basin. *Southeastern Geology*, 40:99-116.
- Kerr, A.M. 2001. Phylogeny of Apodan Holothurians (Echinodermata) inferred from morphology. *Zool. J. Linn. Soc.*, 133(1):53-62.

Kerr, A.M., and J. Kim. 2001. Phylogeny of Holothuroidea (Echinodermata) inferred from morphology. Zool. J. Linn. Soc., 133(1):63-81.

Alexander Kerr - Tree of Life Holothuroidea Web Page

<http://phylogeny.arizona.edu/tree/eukaryotes/animals/echinodermata/holothuroidea/holothuroidea.html>

Kogo, I., and Y. Fujita. 2000. Three new species of the shallow-water comatulids from Okinawa Island, new records in Japan (Crinoidea: Comatulida). Bulletin of the Osaka Museum of Natural History, No. 54: 1-12.

Kogure, Y., and I. Hayashi. 1998. Bathymetric distribution pattern of echinoderms in the Sado Strait, the Japan Sea. Bull. Japan Sea Natl. Fish. Res. Inst., 48: 1-16.

Kogure, Y. 1999. Echinoderms from the lower-sublittoral zone on the north-western coasts of Sado Island, the Japan Sea. Bull. Japan Sea Natl. Fish. Res. Inst., 49: 57-67. (in Japanese with English abs).

Kroh, A. (in press). Echinoids from the Danian (Lower Paleocene) Bruderndorf Formation of Austria.. In: Piller, W.E. & Rasser, M.W. (eds.): Paleogene in Austria.

Kumano, M., D.J. Carroll, J.M. Denu, and K.R. Foltz. 2000. Calcium-mediated inactivation of the MAP kinase pathway in sea urchin eggs at fertilization. Developmental Biology, submitted.

Lacalli, T.C. 2000. Larval budding, metamorphosis, and the evolution of life-history patterns in echinoderms. Invertebrate Biology, Vol. 119(2): 234-241

Lambert, P. 2000. Sea stars of British Columbia, Southeast Alaska and Puget Sound. UBC Press and Royal BC Museum, Vancouver and Victoria.

Lambert, P., and K.L. Oliver. (submitted). *Pseudothyone levini*, a new species of sea cucumber (Echinodermata: Holothuroidea) from the northeastern Pacific. Proc. Biol. Soc. Wash.

Landeira-Fernandez, A.M., K.R.M. Aiello, R. Aquino, L.C.F. Silva, and L. de Meis, and P. Mourao. 2000. A Sulfated Polysaccharide from the sarcoplasmic reticulum of sea cucumber smooth muscle is an endogenous inhibitor of the Ca²⁺-ATPase. Glycobiology, 10(8):773-779.

Landeira-Fernandez, A.M. 2000. The Ca²⁺-ATPase derived from sea cucumber smooth muscle is regulated by K⁺ and sulfated polysaccharides. (review paper) Journal Experimental Biology.

Landeira-Fernandez, A.M., A. Galina, P. Jennings, M. Montero-Lomeli, and L. de Meis. 2000. Sarcoplasmic reticulum Ca²⁺-ATPase of sea cucumber smooth muscle: regulation by K⁺ and ATP. Comparative Biochemistry and Physiology.

Landeira-Fernandez, A.M., A. Galina, and L. de Meis. 2000. Catalytic activity and heat production by the Ca²⁺-ATPase from sea cucumber (*Ludwigothuria grisea*) longitudinal smooth muscle: Modulation by monovalent cations. Journal Experimental Biology.

Lane, D.J.W., L.M. Marsh, D. VandenSpiegel, and F.W.E. Rowe. 2000. Echinoderm fauna of the South

- China Sea: an inventory and analysis of distribution patterns. *The Raffles Bulletin of Zoology*, Suppl.8: 459-493.
- Lane, D.J.W. 1999. A population survey of the 'rare' stichopodid sea cucumber, *Thelenota rubralineata*, off northern Sulawesi, Indonesia. *In: Echinoderm Research 1998: Proceedings of the 5th European Conference on Echinoderms*, Milan [Eds. MDC Carnevali & F Bonasoro], AA Balkema, Rotterdam, pp. 499-503.
- Lawrence, J., E. Bustos, S. Olave, and A. Lawrence. 1997. Enhancement of gonad production in the sea urchin *Loxechinus albus* in Chile use food extruded feed. *J. Aquaculture Society*, 91-96.
- Lawrence, J.M. 2001. Function of eponymous structures in echinoderms. *Can. J. Zool.* 79:1251-1264.
- Lawrence, J.M., C.-Y. Tan. 2001. Test damage to the sand dollar *Mellita tenuis* on the Florida gulf coast. *Gulf Mexico Sci.* 19:50-54.
- Levin, L.A., R.J. Etter, M.A. Rex, A.J. Gooday, C.R. Smith, J. Pineda, C.T. Stuart, R.R. Hessler, and D.L. Pawson. 2001. Environmental influences on regional deep-sea species diversity. *Annual review of Ecology and Systematics* Vol. 32. In Press.
- Liao, Y., and D.L. Pawson. 2001. Dendrochirote and dactylochirote sea cucumbers (Echinodermata: Holothuroidea) of China, with descriptions of eight new species. *Proc. Biol. Soc. Wash.*, 114(1):58-90.
- Litvinova N.M. The brittle stars from the genus *Ophiomyces* (Echinodermata, Ophiuroidea) Composition and Structure of the Marine Bottom biota.-VNIRO Publishing House, 2001. -P.145-158.
- Long, S., V. Morris and M. Byrne. 2000. Seven Hox-type genes from the asterinid starfish *Patiriella exigua*. *Hydrobiologia*, 420: 95-98.
- Magsino, R.M., M.A. Juinio-Meñez, and R.G. Ravago. Development and application of molecular genetic markers for population structure analysis of the coral reef starfish, *Linckia laevigata* (Linn). *Science Diliman*, (in press)
- Mah, C.L. 2000. Preliminary Phylogeny of the Forcipulatacean Asteroidea. *Amer. Zool.*, 40: 375-381.
- Manso, C.L.C., and M.C.V. Farias. 1999. Ocorrência de ofiuróides no conteúdo gastrointestinal de "baiacu" (*Spherooides testudineus* (Linnaeus, 1758) (Teleostei: Tetradontidae) no estuário do Rio Sergipe (Sergipe). *Revista nordestina de Zoologia*, 2(1): 35-37.
- Marsh, L.M. 2000. Echinoderms of the Montebello Islands. *In: Berry, P.F. & Wells, F.E., Survey of the Marine Fauna of the Montebello Islands, Western Australia and Christmas Island, Indian Ocean. Records of the Western Australia Museum, Suppl.* 59:21-27.
- Marsh, L.M. 2000. Echinoderms of Christmas Island. *In: Berry, P.F. & Wells, F.E., Survey of the Marine Fauna of the Montebello Islands, Western Australia and Christmas Island, Indian Ocean. Records of the Western Australia Museum, Suppl.* 59: 97-101.
- Mashanov, V.S., and I.Yu. Dolmatov. 2001. Ultrastructure of the digestive tract in 5-month-old

- pentactulae of a holothurian *Eupentacta fraudatrix* (Holothuroidea, Dendrochirota). Russian J. Marine Biol.
- Mashanov, V.S., and I.Yu. Dolmatov. 2001. Ultrastructural peculiarities of gut regeneration in 5-month-old pentactulae of a holothurian *Eupentacta fraudatrix* (Holothuroidea, Dendrochirota) after artificial transverse bisection. Russian J. Marine Biol.
- Mashanov, V.S., and I.Yu. Dolmatov. Regeneration of digestive tract in the pentactulae of the far-eastern holothurian *Eupentacta fraudatrix* (Holothuroidea, Dendrochirota). Invertebrate Reprod. Develop. (in press).
- Mashanov, V.S., and I.Yu. Dolmatov. 2000. Developmental morphology of a holothurian, *Cucumaria japonica* (Dendrochirota, Holothuroidea), a species with accelerated metamorphosis. Invertebrate Reprod. Develop., 37(2):137-146.
- Massin, C., A. Mercier, and J.-F. Hamel. 2000. Ossicle change in *Holothuria scabra* with a discussion of ossicle evolution within the Holothuriidae (Echinodermata). Acta Zoologica (Stockholm), 81:77-91.
- Matsumoto, Midori, Masako Ikeda, and Motonori Hoshi. Species-specificity of the acrosome reaction in starfish. Zygote 8, (in press) .
- Matsumoto, Midori, Annabelle V. Briones, Takuya Nishigaki, and Motonori Hoshi. 1999. Sequence analysis of cDNAs encoding precursors of starfish asterosaps. Dev. Genetics, 25: 130-136.
- Maubeuge, P.L., and G. Breton. 1999. L'origine du type de *Persephonaster? arduennensis* Breton, 1997, étoile de mer jurassique. Bull. Trim. Soc. géol. Normandie et Amis Muséum du Havre, 86(1):39.
- McClintock, J.B., B.J. Baker, C.D. Amsler, and T.L. Barlow. 2000. Chemotactic tube-foot responses of the spongivorous sea star *Perknaster fuscus* to organic extracts of sponges from McMurdo Sound, Antarctica. Antarctic Science, 12: 41-46
- Messing, C.G., and C.M. White. (in press). A revision of the Zenometridae (new rank) (Echinodermata: Crinoidea: Comatulidina). Zoologica Scripta.
- Messing, C.G., N. Ameziane, and M. Eleaume. 2000. Echinodermata Crinoidea: Comatulid crinoids of the KARUBAR Expedition to Indonesia: The families Comasteridae, Asterometridae, Calometridae and Thalassometridae. In: A. Crosnier (ed.), Résultats des Campagnes MUSORSTOM, Volume 21. Mémoires Muséum national d'Histoire naturelle, 184: 627-702. Paris.
- Mitrović-Petrović, J. 1999. Cidarida fossilized with spines from Barremian-Aptian rocks of Stara Planina, Eastern Serbia. 123-133, Belgrade 1998, printed in 1999.
- Mitrović-Petrović, J. 2000. Mesozoic Echinodermata of Stara Planina, Eastern Siberia. Annal. Geol. Penins. Balk., 63:71-89, Belgrade 1999.
- Mitrović-Petrović, J. 2000. Fossil Echinoidea of Serbia. Bull. Mus. Hist. Nat. Ser. Geol. V.A:47-50, 17-27, Belgrade 1992-98.

- Nakano, Tsuyoshi, Kenji Kontani, Hiroshi Kurosu, Toshiaki Katada, Motonori Hoshi, and Kazuyoshi Chiba. 1999. G-Protein bg subunit-dependent phosphorylation of 62-kDa Protein in the early signaling pathway of starfish oocyte maturation induced by 1-Methyladenine. *Dev. Biol.*, 209:200-209.
- Nezuo, Maiko, Hidehiko Shogomori , Motonori Hoshi, Toshihiro Yamamoto, Tadashi Teshima, Tetsuo Shiba, and Kazuyoshi Chiba. Developmental changes in localization of the main ganglioside during sea urchin embryogenesis. *Glycobiology*. (in press).
- Nishigaki, Takuya, Kazuyoshi Chiba, and Motonori Hoshi. 2000. A 130 kDa membrane protein of sperm flagella is the receptor for asterosaps, sperm-activating peptides of starfish *Asterias amurensis*. *Dev. Biol.*, 219:154-162.
- Odintsova, N.A., and I.Yu. Dolmatov. 2000. Regenerated holoturian tissues as a source of cells for continuous cell lines. Abstracts of 5th International Biotechnology Conference. Australia.
- Ogawa, C., T. Motokawa, H. Ishida, and A. Matsuno. 2000. Glycerinated catch apparatus of sea urchin spine: the effects of cations on its mechanical properties and ultrastructure. *Zool. Sci.*, 17: 603-608.
- Oyen, C.W., and R.W. Portell. 2001. Diversity patterns and biostratigraphy of Cenozoic echinoderms from Florida. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 166:193-218.
- Oyen, C.W., K.B. Fountain, R.W. Portell, and G.H. McClellan. 2000. Occurrence of Plio-Pleistocene phosphatized macro-invertebrates from the upper west Florida slope, eastern Gulf of Mexico. *Bull. Florida Mus. Nat. Hist.*, 42(5):219-252.
- Oyen, C.W. 1998. Allometric heterochrony in Cenozoic mellitid echinoids (S.E. U.S.A.). in *Echinoderms: San Francisco*. (R. Mooi and M. Telford, eds), A.A. Balkema, Rotterdam, p. 771-775.
- Oyen, C.W., and R.W. Portell. 1996. A new species of *Rhyncholampas* (Echinoidea: Cassidulidae) from the Chipola Formation: The first confirmed member of the genus from the Miocene of the southeastern U.S.A. and Caribbean. *Tulane Studies in Geology and Paleontology*, 29(2):59-66.
- Oyen, C.W. 1995. Biostratigraphy and paleobiogeography of Eocene comatulid crinoids from Florida. *Tulane Studies in Geology and Paleontology*. 27(1-4):153-164.
- Parsley, R.L. 2000. Morphological analysis of the Ordovician Ankyroid *Lagyncystis* (Stylophora: Echinodermata). *Journal of Paleontology*, 74(2):254-262.
- Parsley, R.L., R.J. Prokop, and K. Derstler. 2000. Kirkocystid ankyroids (Stylophora: Echinodermata) from the Sarka Formation (Ordovician) of Bohemia. *Bulletin of the Czech Geological Survey*, 75(1):37-48.
- Pawson, D.L., D.J. Vance, and C. Ahearn. 2001. Western Atlantic sea cucumbers of the Order Molpadiida (Echinodermata: Holothuroidea). *Bull. Biol. Soc. Wash.*, 10:311-327.
- Pawson, D.L. 2001. Mirror-image abnormalities (situs inversus viscerum) in echinoderms. *Gulf of Mexico Science*, December 2001 issue.

- Pawson, D.L., and A. Kerr. 2001. Chitin in echinoderms? Tentacle sheaths in the deep-sea holothurian *Ceraplectana trachyderma* (Holothuroidea: Molpadiida). *Gulf of Mexico Science*, December 2001 issue.
- Pawson, D.L., and R.J. Mooi. 2001. How many five-holed sand dollars live in the Western Atlantic? *Gulf of Mexico Science*, December 2001 issue.
- Pawson, D.L., J.D. Gage, G.M. Belyaev, A. Mironov, and A. Smirnov. (in press). The deep-sea synaptid *Protankyra brychia* (Echinodermata: Holothuroidea) and its near-surface-dwelling planktotrophic larva, *Auricularia nudibranchiata*. *Sarsia*.
- Pawson, D.L. (in press). A new species of bathyal elasipod sea cucumber from New Zealand (Echinodermata: Holothuroidea). *New Zealand Journal of Marine and Freshwater Research*.
- Peyrot-Clausade, M., P. Chabanet, C. Conand, M.F. Fontaine, Y. Letourneur, and M. Harmelin-Vivien. 2000. Sea-urchin and fish bioerosion on La Réunion and Moorea reefs. *Bull. mar. sci* 66(2): 477-485
- Piepenburg, D., A. Brandt, K. v Juterzenka, M. Mayer, K. Schnack, D. Seiler, U. Witte, and M. Spindler. 2001. Patterns and determinants of the distribution and structure of benthic faunal assemblages in the northern North Atlantic. *In: Schäfer, P., W. Ritzrau, M. Schlüter, J. Thiede (eds), The northern North Atlantic: a changing environment*. Springer, Berlin, pp. 177-198.
- Piepenburg, D., M.K. Schmid, and D. Gerdes. (In press). The benthos off King George Island (South Shetland Islands, Antarctica): further evidence for a lack of a biomass cline in the Southern Ocean. *Polar Biology*.
- Piepenburg, D. 2000. Arctic brittle stars (Echinodermata: Ophiuroidea). *Oceanogr. Mar. Biol. Annu. Rev.*, 38: 189-256.
- Pinnegar, J.K., N.V.C. Polunin, P. Francour, F. Badalamenti, R. Chemello, M.-L. Harmelin-Vivien, B. Hereu, M. Milazzo, M. Zabala, G. D'Anna, C. Pipitone. 2000. Trophic cascades in benthic marine ecosystems: lessons for fisheries and protected-area management. *Environmental Conservation*, 27(2): 179-200.
- Pomory, C.M., and M.T. Lares. 2000. Rate of regeneration of two arms in the field and its effect on body components in *Luidia clathrata* (Echinodermata: Asteroidea). *Journal of Experimental Marine Biology and Ecology* 254: 211-220.
- Pomory, C.M. (in press). An escape response behaviour in the brittle star *Ophiopteris papillosa* (Echinodermata: Ophiuroidea). *Marine and Freshwater Behaviour and Physiology*.
- Pomory, C.M., and Lawrence, J.M. (in press). Arm regeneration in the field in *Ophiocoma echinata* (Echinodermata: Ophiuroidea): Effects on body composition and its potential role in a reef food web. *Marine Biology*.
- Portell, R.W., and C.W. Oyen. 2001. Eocene Echinoids. *Florida Fossil Invertebrates, Part 1*, p. 1-24.
- Portell, R.W., and C.W. Oyen. 1997. Occurrence of the regular urchin *Eucidaris* from the Tamiami Formation (Pliocene) of Florida. *Tulane Studies in Geology and Paleontology*, 30(2):99-104.

- Poulin, É., and J.-P. Féral. 2001. Consequences of brood protection in the diversity of Antarctic echinoids. *In: Concepts and methods for studying marine biodiversity, from gene to ecosystem*, J.-P. Féral (ed), European TMR / CNRS practical training course. *Océanis*, 24(4):159-188 (1998)
- Ramafofia, C. and M. Byrne. 2000. Reproduction of the commercial sea cucumber *Holothuria fuscogilva* in Solomon Islands. *Mar. Biol.*, 136: 1045-1056.
- Rajpal, V., and A.S. Thandar. 1999. *Stolus kilberti*, a new dendrochirotid species from the east coast of South Africa (Echinodermata: Holothuroidea) with a key to the genus *Stolus* Selenka. *S. Afr. J. Zool.*, 34(3):130-134.
- Rajpal, V., and A.S. Thandar. 1998. *Neocucumis kilburni* sp. nov. (Echinodermata: Holothuroidea: Cucumariidae) from the east coast of South Africa, with a key of the genus *Neocucumis*. *S. Afr. J. Zool.*, 33(4):195-199.
- Russell, M.P. in press. Spatial and temporal variation in growth of the green sea urchin, *Strongylocentrotus droebachiensis*, in the Gulf of Maine, USA. *Proceedings of the 10th International Echinoderm Conference*.
- Russell, M.P., and R.W. Meredith. 2000. Natural growth lines in echinoid ossicles are not reliable indicators of age: A test using *Strongylocentrotus droebachiensis*. *Invertebrate Biology*, 19:410-420.
- Russell, M.P. 2000. A tank-system design for the hatchery production of sea-urchin larvae. In *Proceedings of the Workshop on the Co-ordination of Green Sea Urchin Research in Atlantic Canada*. June 1 - 2, 2000, Université de Moncton. [<http://oursin/pdf/bert.pdf>]
- Russell, M.P., T.A. Ebert and P. Petraitis. 1998. Field estimates of growth and mortality of the green sea urchin, *Strongylocentrotus droebachiensis*. *Ophelia*, 48:137-153.
- Russell, M.P. 1998. Resource allocation plasticity in sea urchins: rapid, diet induced, phenotypic changes in the green sea urchin, *Strongylocentrotus droebachiensis* (Müller). *Journal of Experimental Marine Biology and Ecology*, 220:1-14.
- Schmid, H.-P., Harzhauser, M., & Kroh, A. 2001. Hypoxic Events in a Middle Miocene Carbonate Platform of the Central Paratethys (Austria, Badenian, 14 Ma). - *Ann. Naturhist. Mus. Wien* 102A: 1-50 - Wien.
- Schuetz, A.W. 2000. Extrafollicular mediation of oocyte maturation by radial nerve factor in starfish *Pisaster ochraceus*. *Zygote* 8 (November) :359-368.
- Scouras, Andrea, and Michael J. Smith. 2000. A novel mitochondrial gene order in the crinoid echinoderm, *Florometra serratissima*. submitted Genetics.
- Seeling, J., W. Souza-Lima, and C.L.C. Manso. 2000. Os fósseis da bacia de Sergipe-Alagoas. Os equinóides. *Phoenix*, 21:1-3.
- Selvakumaraswamy, P. and M. Byrne. 2000. Vestigial ophiopluteal structures in the lecithotrophic ophiuroid *Ophioneis schayeri*. *Biol. Bull.*, 198: 379-386.

- Selvakumaraswamy, P., and M. Byrne. 2000. Reproduction, spawning and development in 5 ophiuroids from Australia and New Zealand. *Invert. Biol.* (in press).
- Shilling, F.M., D.J. Carroll, A.J. Muslin, J.A. Escobedo, J.T. Williams, and L.A. Jaffe. 1994. Evidence for both tyrosine kinase and G-protein-coupled pathways leading to starfish egg activation. *Dev. Biol.*, 162:590-599.
- Shilling, F.M., and D.J. Carroll. 1996. Signal transduction during fertilization: studies with proteases and heterologous receptors. *Proceedings of 7th International Congress of Invertebrate Reproduction, Invertebrate Reproduction and Development*, 30:109-115.
- Shukaluk, A.I., and I.Yu. Dolmatov. 2001. Regeneration of the digestive tube in holothurian *Stichopus japonicus* after evisceration. *Russian J. Marine Biol.*
- Smith, A.B. 1998. What does palaeontology contribute to systematics in a molecular world? *Molecular Phylogenetics and Evolution*, 9:437-447.
- Smith, A.B. 1999. Dating the origin of metazoan body plans. *Evolution and Development* 1, 1-5.
- Smith, A.B., and L. Anzalone. 2000. *Loriolella*, a key taxon for understanding the early evolution of irregular echinoids. *Palaeontology*, 43:303-324.
- Smith, A.B., J. Gallemi, C.H. Jeffery, G. Ernst, and P.D. Ward. 1999. Late Cretaceous - early Tertiary echinoids from northern Spain: implications for the Cretaceous - Tertiary extinction event. *Bulletin of the Natural History Museum, London (Geology)*, 55(2):81-137.
- Smith, A.B., and C.H. Jeffery. 1998. Selectivity of extinction among sea-urchins at the end Cretaceous period. *Nature* 392: 69-71.
- Smith, A.B., and C.H. Jeffery. 2000. Maastrichtian and Palaeocene echinoids: a key to world faunas. *Special Papers in Palaeontology*, 63:1-406.
- Smith, A.B., and C.H. Jeffery. 2000. Changes in diversity, taxic composition and life-history patterns of echinoids over the past 145 million years. Pp. 181-194 in S.J. Culver & P.F. Rawson (eds) *Biotic response to global change. The last 145 million years*. Cambridge University Press, Cambridge. 501 pp.
- Smith, A.B., and P. Jell. 1999. A new cornute carpodid from the Upper Cambrian (Idamdean) of Queensland. *Memoirs of the Queensland Museum*, 43:341-352.
- Smith, A.B., and C.W. Wright. 1999. British Cretaceous echinoids. Part 5, Holoctypoida, Echinoneoida. *Palaeontographical Society Monographs* p. 343-390, pls 115-129.
- Souza-Lima, W., and C.L.C. Manso. 2000. Os fósseis da bacia de Sergipe-Alagoas. *Crinóides e Asteróides*. *Phoenix*, 22: 1-2.
- Spirina, I.S., and I.Yu. Dolmatov. 2001. The structure of the respiratory trees in the holothurians *Apostichopus japonicus* and *Cucumaria japonica*. *Russian J. Marine Biol.* (in press).

- Stewart, B. 2000. Anatomical features of the euryalid snake star *Astrobrachion constrictum* (Ophiuroidea: Asterocheimataceae). *Invertebrate Biology*, Vol. 119(2): 222-233.
- Stickle, W.B., E.H. Weidner, and E.N. Kozloff. 2000. Parasitism of *Leptasterias* spp. by the ciliated protozoan *Orchitophrya stellarum*. *Invertebrate Zoology* (in press).
- Su, X., S. Kamat, and A.H. Heuer. 2000. The structure of sea urchin spines, large biogenic single crystals of calcite. *Journal of Materials Science*, 35: 5545-5551.
- Summesberger, H., M. Wagreich, K.-A. Tröger, and J.W.M. Jagt. 1999. Integrated biostratigraphy of the Santonian/Campanian Gosau Group of the Gams Area (Late Cretaceous; Styria, Austria). *Beiträge zur Paläontologie*, 24: 155-205, pls 1-12.
- Sutcliffe, O.E., W.H. Südkamp, and R.P.S. Jefferies. 2000. Ichnological evidence on the behaviour of mitrates - two trails associated with the Devonian mitrate *Rhenocystis*. *Lethaia*, 33:1-12.
- Tahera, Qaseem. 2001. Echinoderms epizoic on gorgonian corals from Karachi coast. *Pakistan Journal of Biological Sciences*, 4(9):1177-1179.
- Tahera, Qaseem. 2001. Echinoderms epizoic on gorgonian corals from Karachi coast. *Online. jour. Biol. sciences*, 1(4); Tahera,Q2001
- Tan, C.Y., and J.M. Lawrence. 2001. Age determination in the sand dollar *Mellita tenuis*. *Gulf Mexico Sci.* 19:43-49.
- Thandar, A.S. 1998. A new genus and three new species of deep sea holothuroids from the west coast of South Africa (Echinodermata). *J. Zool. Lond*, 244:79-88.
- Thandar, A.S., and V. Rajpal. 1999. *Thyone herberti*, a new Dendrochirotid species from the east coast of South Africa (Echinodermata: Holothuroidea). *J. Zool. Lond.*, 248:189-193.
- Thandar, A.S. 1999. Deep-sea holothuroids taken by the R.V. *Africana II* in 1959, from off the west coast of the Cape Peninsula, South Africa. *Ann. S. Afr. Mus.*, 105(9):363-409.
- Thandar, A.S. 2001. In press. The holothuroid family Rhopalodinidae - its composition, distribution, phylogeny and taxonomic status. *African Zoology*.
- Torres, M., D. Gil, and P. Domínguez. 1999. Stable multimodal fivefold patterns in crinoids and echinoids: a general mathematical approach. *In: Echinoderms research 1998*, Candia Carnevali and Bonasoro (Eds.). A. A. Balkema. Rotterdam. 193-196. ISBN 90-5809-102-3.
- Torres, M., M. Gil, and P. Domínguez. 1999. Patrones multimodales estables con simetría pentámera: el caso de los Crinoideos Rhodocrinitidos. *Coloquios de Paleontología*, 117-125. ISSN: 1132-1660.
- Tyler, P.A., Young, C.M. and Clarke, A. (2000) Temperature and pressure tolerances of embryos and larvae of the Antarctic sea urchin *Sterechinus neumayeri* (Echinodermata: Echinoidea): potential for deep-sea invasion from high latitudes. *Marine Ecology Progress Series*, 192: 173-180.

- Vadet A. 1999. Révision des Échinides de Saint Cassian. Mem. Soc. Acad. Boul. Tome 20. p. 1-116 , 170 fig. in texte.
- Vadet A. 1999. La Classification des oursins réguliers du Lias et du Jura. Bull. Soc. Acad. Boul. Tome 4, fascicule 3. p. 70-83 , 14 fig. in texte.
- Vadet A. 1999. Les Echinides de la Sarthe : supplément. Bull. Soc. Acad. Boul. Tome 4, fascicule 3. p. 84-92 , 13 fig. in texte.
- Vadet A. 2000. Un Salenioida primitif dans le Kimmeridgien de l'Ain. Bull. Soc. Acad. Boul. Tome 4, fascicule 4. p. 93-97 , 4 fig. in texte. pl. 1
- Vadet A., and P. Nicolleau . 2000. *Glypticus burgundiacus* : un Arbacioida jurassique. Bull. Soc. Acad. Boul. Tome 4, fascicule 4. p. 98-106 , 13 fig. in texte. pl. 2
- Vadet A., and P. Nicolleau. 2000. Un *Acrocidaris* nouveau dans le Callovien du Portugal. Bull. Soc. Acad. Boul. Tome 4, fascicule 4. p. 107-109 , 5 fig. in texte. pl. 3-4
- Vadet A., R. Ederlé, and P. Nicolleau. 2000. Les Oursins du Bathonien de l'Yonne. Bull. Soc. Acad. Boul. Tome 4, fascicule 4. p. 109-128 , 52 fig. in texte. pl. 5 à 16.
- VandenSpiegel, D., D.J.W. Lane, S. Stampanato, and M. Jangoux. 1999. The asteroid fauna (Echinodermata) of Singapore, with a distribution table and an illustrated identification to the species. The Raffles Bulletin of Zoology, 46(2): 431-470.
- Vickery, M.S., and J.B. McClintock. 2000. Comparative morphology of tube feet among the Asteroidea: Phylogenetic implications. Amer. Zool., 40: 355-364.
- Villasin, J., and C.M. Pomory. 2000. Antibacterial activity of extracts from the body wall of *Parastichopus parvimensis* (Echinodermata: Holothuroidea). Fish & Shellfish Immunology, 10: 465-467.
- Villier, L., G. Breton, P. Margerie, and D. Neraudeau. (soumis, accepté). *Maupedaster* gen. nov. *cariniferus* sp. nov., astéride original du Coniacien de Seine-Maritime et révision systématique de la famille des Stauranderasteridae. Bull. Trim. Soc. géol. Normandie et Amis Muséum du Havre. (expected 2001).
- Wang, Z.C., and Y.Q. Chang. 1997. Studies on seeds cultivation of Japanese sea urchin *S. intermedius*. Journal of China Fisheries Science (in Chinese), 4(1):60-67.
- Wang, Z.C., and Y.Q. Chang. 1997. Reseach prospects for mariculture of sea urchin. Marine Science (in Chinese), 2:22-24
- Webster, G.D., P.A. Jell, and A.N. Derewetzky. 2000. Palaeobiogeography of Permian echinoderms of Australia. Historical Biology.
- Webster, G.D. 2000. Paleobiogeography of Devonian and Carboniferous faunas of Gondwana. Records of the Western Australian Museum, v. 58, Suppl.:1-18.

- Wirtz, P. 1988. *Tuleariocaris neglecta* Chace 1969 found in association with *Diadema antillarum* at Madeira, and two new records of decapod crustaceans from the Cape Verde islands. Cour. Forsch. Inst. Senckenb. 105, 169-171.
- Wirtz, P., and H. Martins. 1993: New and little known marine invertebrates from the Azores - with a discussion of the zoogeography of the area. Archipelago 11 A, 55-63.
- Wirtz, P. 1995. Underwater Guide Madeira - Canary Islands - Azores: Invertebrates. Unterwasserführer Madeira-Kanaren-Azoren: Wirbellose. 248 pages, English/German. S. Nagelschmid Verlag, Stuttgart.
- Wirtz, P. 1996. One vascular plant and ten invertebrates new for the marine flora and fauna of Madeira. Arquipélago 13 A, 119-123.
- Wirtz, P., and W. Vader. 1997. A new caprellid - starfish association: *Caprella acanthifera* s.l. on *Ophidiaster ophidianus* and *Hacelia attenuata* from the Azores. Arquipélago 14 A (for 1996), 17-22.
- Wirtz, P. 1998. Twelve invertebrate and eight fish species new to the marine fauna of Madeira, and a discussion of the zoogeography of the area. Helgol. Meeresunt. 52, 197-207.
- Wirtz, P. 1999. Caprellid - holothurian associations at the Azores. Archipelago 16A, 53-55 (for 1998).
- Wray, G.A., and C.J. Lowe. 2000. Developmental regulatory genes and echinoderm evolution. Systematic Biology.
- Zavodnik, D. 1999. Echinodermata of Kastela Bay (Adriatic Sea, Croatia). Acta Adriatica, 40(2):45-54.
- Zavodnik, D., A. Jaklin, M. Radosevic, and N. Zavodnik. 2000. Distribution of benthos at Jabuka, an island of volcanic rock (Adriatic Sea). Pridicium biologorum, 102(2):157-167.
- Zavodnik, D., and M. Kovacic. 2000. Index of marine fauna in Rijeka Bay (Adriatic Sea, Croatia). Natura Croatica, 9(4):297-379.
- Zavodnik, D., N. Zavodnik and Lj. Ivesa. 2001. The 110th anniversary of the marine research station at Rovinj (Adriatic Sea, Croatia). Reference collections. Natura Croatica, 10(1):53-60.
- Zulfigar, Y., S.H. Aileen Tan, T. Fujita, and M. Terazaki. 2001. The distribution of sea cucumber associated with seagrass beds found in the South China Sea. In: Terazaki, M., A. Taira, M. Uematsu, Y. Michida and T. Kaneko, eds. Proceedings of the 11th JSPS Joint Seminar on Marine Science. Center for International Cooperation, Ocean Research Institute, University of Tokyo, Tokyo, pp. 362-368.

AILSAS'S SECTION

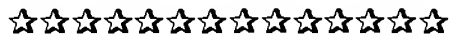
☆☆☆ ECHINODERMS IN LITERATURE ☆☆☆

EVO-DEVO OF ECHINODERMS ACCORDING TO HAECKEL

Contributed by J.M. Lawrence

Haeckel, E. 1876. The history of creation: or the development of the earth and its inhabitants by the action of natural causes. A popular exposition of the doctrine of evolution in general, and of that of Darwin, Goethe, and Larmarck in particular. "Every Star-fish consists of a central, small, body-disc, all round the circumference of which are attached five or several long articulated arms. *Each arm of the Star-fish essentially corresponds in its organization with an articulated worm of the class of Ring-worms, or Annelida.* I therefore consider the Star-fish as a genuine *stock or cormus*¹ of five or more articulated worms, which have arisen by the star-wise growth of a number of buds out of a central mother-worm. The connected members, thus grouped like the rays of a star, have inherited from the mother-worm the common opening of the mouth, and the common digestive cavity (stomach) lying in the central body-disc. The end by which they have grown together, and which fuses in the common central disc, probably corresponds to the posterior end of the original independent worms...The most important proofs, however, of the truth of my hypothesis are furnished by the ontogeny or the individual development of the Echinoderma." "The fully developed Echinoderm arises by a very remarkable process of budding in the interior of the "nurse", or which it retains little more than the stomach. The nurse, erroneously called the "larva," of the Echinoderm, must accordingly be regarded as a solitary worm, which by internal budding produces a second generation, in the form of a stock of star-shaped and connected worms. The whole of this process is a genuine alternation of generations, or metagenesis, not a "metamorphosis," as is generally though erroneously stated. A similar alternation of generations also occurs in many other worms, especially in some star worms (Sipunculidæ), and cord worms (Nemertinae). Now if, bearing in mind, the fundamental law of biogeny, we refer the ontogeny of Echinoderma to their phylogeny, then the whole historical development of the Star-fishes suddenly becomes clear and intelligible to us, whereas without this hypothesis it remains an insoluble mystery."

¹A cormus is a colony.



Contributed by J.M. Lawrence

Immer, A. 2000. Nine wine myths. Esquire. May. p. 46.: "Anyone who has gotten into the bold, full-bodied genre of superintense California chardonnay knows these wines clobber fish. And the only fish I have ever had that did not work with (other) red wine was sea urchin."

Contributed by J.M. Lawrence

Clancy, T., and M. Greenberg. 1999. Power Plays: Shadow Watch. "Rick said, "The eagles prefer eating fish to anything else, but when they're really hungry or nursing a brood, they'll make a meal out of whatever they can sink their talons into...She shot a glance across the table at him. "How about urchins?" Rick smiled a little. "Them too," he said...Either of you ever hear about urchin diving?" "Pete?" Ricci said. "Only that urchins are a specialty item in foreign seafood markets. I'd assume they can bring good money."...Megan looked at him. "If somebody had told me that when I was ten, I'd be worth millions today. My big brother and I would walk along the beach and collect them off the jetties in our plastic buckets. Then we'd fill the buckets with ocean water and try to convince our parents to let us bring them home as pets. My dad would tell me to get those damned sea porcupines out of the house."..."Most of the old-time lobstermen still refer to them as whore's eggs because they mess up their traps. Clog the vents, eat the bait, even chew through the headings and lathe to get at the bait. The nasty little buggers have some sharp teeth to go with their spines."..."The urchins are found in colonies, usually in subtidal kelp beds. Once upon a time they practically carpeted the bottom of the Penobscot from the shoreline on out, so you could scoop them up without dunking your head." He paused. "Past few years have been slim pickings. Overharvesting's driven the value of the catch up into the stratosphere, and made people so protective of their zones they're baring their teeth and beating their chests if you come anywhere close to them."

The Tampa Tribune-Times, Sunday, January 16, 1994



FOX TROT

By Bill Amend

169



Number 15 - September 2001



SPC BECHE-DE-MER

Information Bulletin

Group Co-ordinator and Bulletin Editor:

Chantal Conand, Université de La Réunion, Laboratoire de biologie marine, 97715 Saint-Denis Cedex, La Réunion, France.

Fax: +262 938166; E-mail: Chantal.Conand@univ-reunion.fr

Laboratoire de biologie marine website:

http://www.univ-reunion.fr/t10_fac_sciences/t10_plaquette/ecomar.htm

Production:

Information Section, Marine Resources Division, SPC, B.P. D5, 98848 Noumea Cedex, New Caledonia.

Fax: (687) 263818; E-mail: cfpinfo@spc.int

Produced with financial assistance from France and Australia.

Note from the coordinator

Welcome to the 15th issue of the Bulletin. The number of new subscribers and the great number of hits on the Bulletin's web-pages are proof of the increasing interest raised by our publication. Thanks to all contributors who helped me in keeping the Bulletin alive and informative.

We start the 'New Information' section with an article on the Torres Strait beche-de-mer fishery followed by two articles on the different aspects of the biology of sea cucumbers sexual reproduction. The 'Aquaculture News' column includes three original articles presenting new projects in Vietnam, Marshall Islands and New Zealand.

Information on beche-de-mer prices is difficult to get.

INFOFISH Trade News

(http://www.jaring.my/infotrade/TradeNews_downloadpage.htm) is one of the best sources of information for seafood market trends and we are thankful to them for allowing us to reproduce a table presenting beche-de-mer prices on the Asian markets. We also thank the National Fisheries Authority (NFA) of Papua New Guinea for providing information on their beche-de-mer export prices. Sharing information is the main aim of this bulletin and we encourage other fisheries departments from within and outside the Pacific region to follow NFA's example.

I draw again your attention to the 'Echinoderms Newsletter' that is available on the Web (www.nmnh.si.edu/iz/echinoderm) and to the echinoderms forum that was created after the International Conference in Dunedin. You can subscribe by contacting sabine.strohr@nrm.se or by sending an e-mail to listserv@nrm.se and including on the first line of the message SUBSCRIBE ECHINODERM-L, your surname and first name, but no other text.

Chantal Conand

Contents

The Torres Strait beche-de-mer (sea cucumber) fishery
by D. D'Silva

Sexual reproduction of *Stichopus chloronotus*, a fissiparous sea cucumber, on Reunion Island, Indian Ocean
by T. Hoareau and C. Conand

Assessment of the 'tubule recruitment model' in three tropical Aspidochirote holothurians
by C. Ramofafia and M. Byrne

Preliminary sandfish growth trials in trunks, ponds and pens in Vietnam
by R. Pitt et al.

The new Marsha Islands Science Station inaugurates a sea cucumber aquaculture research programme
by J.-F. Hamel and A. Mercier

Sea cucumbers: farming, production and development of value added products
by A. Morgan

Market News

Abstracts & Publications

Meetings

Correspondence

☆☆☆ How I Began Studying Echinoderms. Part 11. ☆☆☆

Casey Burns - Wind Instrument Maker and Occasional Paleontologist

My 8th grade science fair project of extracting fossil pollen from coal caught the attention of the local science museum in Portland, which ran a science research center for high school students. The paleo wing was run by David Taylor, who suggested that I pursue my interest in the nearby marine Keasey Formation. We visited the legendary Mist crinoid locality - my first exposure to crinoids - and I was immediately hooked and fascinated. Thus, instead of attending sock-hops and football games, I spent my high school afternoons and weekends obsessed, crawling all over NW Oregon looking for echinoderm fossils, or working at an S. S. White sandblaster that threatened to give me chronic bronchitis! Summers all of us headed to the Hancock Field Station in Eastern Oregon where we dug up large Eocene vertebrates (boring....), and enjoyed the 60's a few years late. Hancock became the center of our universe and community. Everyone called me "Crinoid".

My college advisors frankly told me there was no point in continuing my echinoderm obsession. I should have gone elsewhere, but at PSU, a geology student was basically trained to find oil for the oil companies (not what I wanted to pursue, especially as a militant bicyclist!), so I went after other interests in and out of school and eventually created a career as a self employed maker of wind instruments, such as wooden flutes and unusual species of bagpipe. My paleontology interests waned, especially as I moved farther away from NW Oregon. During that time, unfortunately, the Mist locality was more or less illegally mined for commercial purposes - I should have been paying more attention - and any thoughts of returning to this fascination seemed remote.

Eventually, my family and I moved outside of Seattle. A few years later, a group called the Northwest Paleontological Association formed and met at the Burke Museum at UW. I quickly found myself involved as the Association's newsletter editor. Through field trips, contacts and access to the Burke's underbelly as a volunteer, I began to explore western Washington's paleontology avocationally, as well as re-exploring NW Oregon's. One day, while examining a Keasey Formation locality that had produced a largish (20cm) isopod, my wife Nancy stumbled upon a very nicely preserved spatangoid. Further collecting produced several more.

Liz Nesbitt, curator of invertebrate paleo at the Burke, suggested that I contact her friend Rich Mooi at CAS, who kindly took me under his wing to study these together, and to provide me with some necessary guidance and instruction. This was just the beginning, and was the rekindling of my fascination with these wonderful echinoderms. Since then, we have been working on several fronts together, and have enjoyed several great moments of wit, repartee and friendship. Our first paper, "An Overview of the Eocene - Oligocene Echinoderm Faunas of the Pacific NW", is currently in press.

I very much enjoy this experience of riding the fence as an avocational paleontologist, working with fellow amateur collectors who have provided me with several important specimens (all of which will end up in appropriate repositories!) or assisted in the field, and with professional paleontologists and biologists who graciously recognize the passion, value and legitimacy of my activities.

Casey Burns - Wind Instrument Maker and Occasional Paleontologist

9962 Shorty Campbell Road Kingston WA 98346 USA

(360) 297-4020

cburns@mail2.telebyte.com

cburns@krl.org

<http://kendaco.telebyte.com/cburns>

Grigory Winter, lecturer of Cherepovets branch office of Russian Academy of Education University; post graduate student of the faculty of Geology of Saint-Petersburg University.



This picture was taken a month after the windfall of a new Echinodermata in Cherepovets (with the favorite cat Susanna on the shoulder).

I was born in the year 1969 in the Russian Far East, in Vladivostock-city. My parents are famous in Russia philologists and did a lot to provoke my interest in natural history. The first collection of minerals and rocks was presented to me before my going to school. In the year 1982 my family went to European part of Russia to the steel city of Cherepovets. By this time the collection of rocks and minerals become bigger and included some fossils. In the year 1987 I entered Vologda State Pedagogical University, the faculty of Natural Geography, where I studied paleontology and geology for 5 years, specializing in geology of the Northern European part of Russia. In the year 1993 I began to work at Cherepovets State University at the chair of natural history and ecology. At this time I described several rocks and minerals unknown in Vologda region. In 1996 I made my main windfall in the historic center of Cherepovets at the bank of river – the representative of unknown species of Ophiocistia class. In year 1997 I began to work at Cherepovets branch office of Russian Academy of Education University where larger possibilities for

creative work were given. Working there I take post graduate courses at the faculty of Geology of Saint-Petersburg State University.

Due to poor investigation of Vologda region the sphere of my interest is very wide and includes many questions in geology and paleontology.

The spheres of the interest:

- description of not investigated semiprecious rocks and minerals
- founding and description of rare representatives of sea fauna of Carbon
- reconstruction of the found fossils (team-work with Mr. Roman Fedorov - the head of Cherepovets University Biological & Ecological laboratory)
- investigation of the modern relief of Vologda region forming process due to plate-tectonical model of construction of lithosphere (taking Severnie Uvali Hills – the largest hills of the North of European part of Russis as example)
- analyses of the mould of the forefoot of Notosaur found in Cherepovets in the summer of 2001.
- studying of phylogenetic table of Echinodermata due to the windfall of Augustina winteri

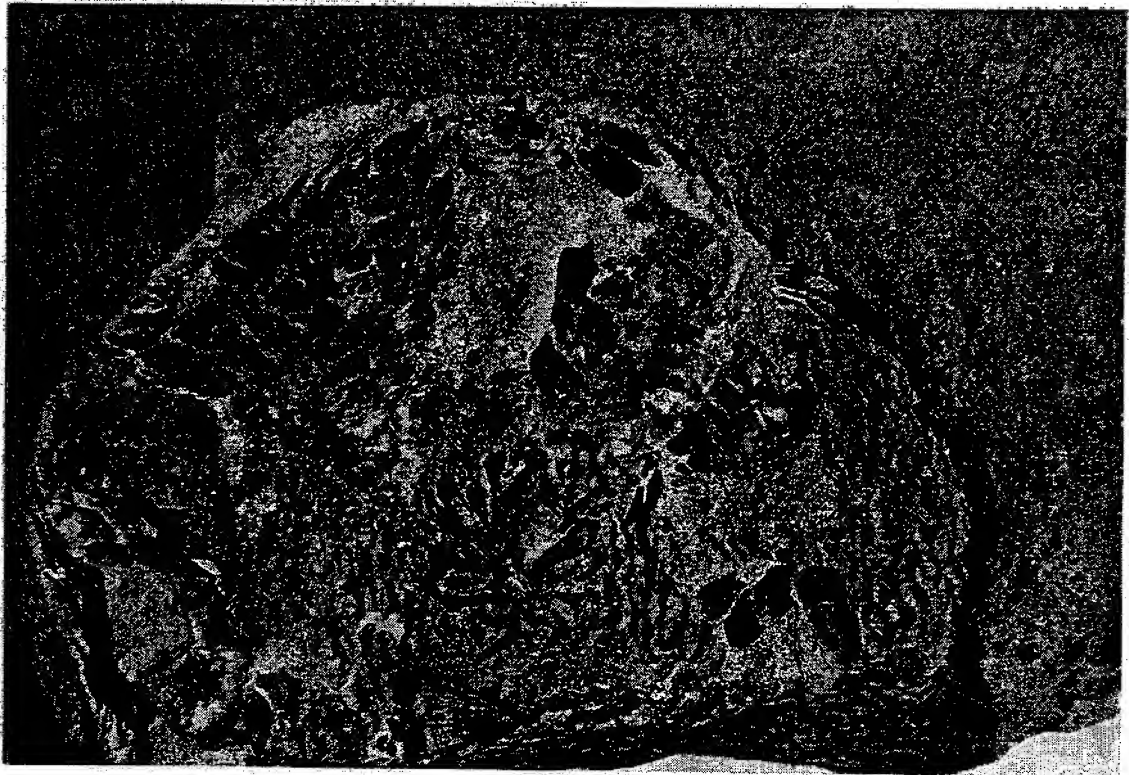
The results of my researches are published in the bulletins of the scientific works of Cherepovets scientists and in the report of regional geological department. At the end of 2001 year a special brochure “Conception research of Severnie Uvali Hills” was published in the local State University (Cherepovets).

My E-mail is latin@metacom.ru;
fax is 7 (8202) 575 765;
phone number is 7 (8202) 572 312.
The address is –
Mr. Grigori Winter
Pervomajskaja Av. 35 –37
Cherepovets
Vologda region
Russia, 162612

New Echinodermata (Ophiocistoidea) found on the North-East of Russian Plate (Europe part of Russia)

I. The object of research

The object of research is oral side of Ophiocistoidea the maximum diameter of which is 105 MM, with completely undamaged Aristotle lantern and other structures. This windfall has great science importance as the number of found fossilized Ophiocistia is very few due to small number of representatives of this class in general. The class of Ophiocistia is a typical transition link which is vaguely entered in the list of geological history due to quick morphological changes. They combined the features of ancient regular sea-urchins, starfishes and brittlestars. The distinctive features of Ophiocistia is that this class is the link between the organisms from sedentary to free style of life. The nearest ancestor of Ophiocistia is probably Edrioasteroidea. After the death of the organism the shell usually comes apart into calcium plates. The specimens found before this Ophiocistoidea had lower sizes and were not in such undamaged state comparing with the one found 600 km to the North from Moscow on the North-East of Russian Plate (Europe part of Russia).



II. Time and place of windfall

On the 8th of August of 1996 on the bank of Jagorba river (Cherepovets), which is forming together with Sheksna river the largest artificial storage in the world, was found quartzite copy of large Echinodermata. The windfall was made due to the lowest level of the water in the river of all the seasons of the last century. Thanks to it a lot of stones and minerals laying at the bottom were seen on the surface. The place of windfall is practically in the center of metallurgist industrial city; which is 100 meters to the South from the Severni bridge (The Northern Bridge) which connects two parts of city Cherepovets.

III. The history of investigation of the windfall

I found this Echinodermata being a teacher of natural History of Cherepovets State University. At that time I was a specialist in Paleozoic paleontology but not a good specialist on the field of Echinodermata. Great help in taxonomy identification of windfall was given by Doctor of Biology, specialist of invertebrates Mrs Tatijana Ermoshenkova. It was her who identified this Echinodermata as representative of Class Ophiocistoidea. For 2 years the head of University laboratory of Zoology Mr. Roman Fedorov and I have been studying the morphological peculiarities of this windfall. In the spring of 1998 the windfall was named *Augustina winteri* and it was included into the State list of new found invertebrates of Russia. The article about the peculiarities of *Augustina winteri* was published the same year in Cherepovets (Annual collection of researches of young scientists). The next 3 years the structural reconstruction and some other technically difficult investigations took place in the laboratories of Cherepovets State University under the leadership of Doctor of technical science Mr. Fedorchuk.. The main result of these investigations was the age determination of *Augustina winteri* – it lived 320 –330 millions of years ago. Thus we can see that the windfall belongs to middle Carbon period. It is extremely interesting peculiarity of this windfall as all before described in literature Ophiocistia lived not later than Devon. It was also confirmed by founding of Brachiopod *Brachythyryna* sp. in the same quartzite copy with Ophiocistia. Two clamshells of *Brachythyryna* sp. were seen in full and the fragments of one more *Brachythyryna* sp. were found near the Aristotle lantern of *Augustina winteri* which tells us about the fact that most probably this Echinodermata was a predator and made short work of her victims like nowadays large tropic starfishes. Thanks to undamaged state and large size of the windfall we managed to reconstitute the details of morphological construction of oral side of *Augustina winteri*, in spite of the fact that 1/3 of the fossil is destroyed by erosion.

IV. Biofacies analyze: The way of life and peculiarities of burial.

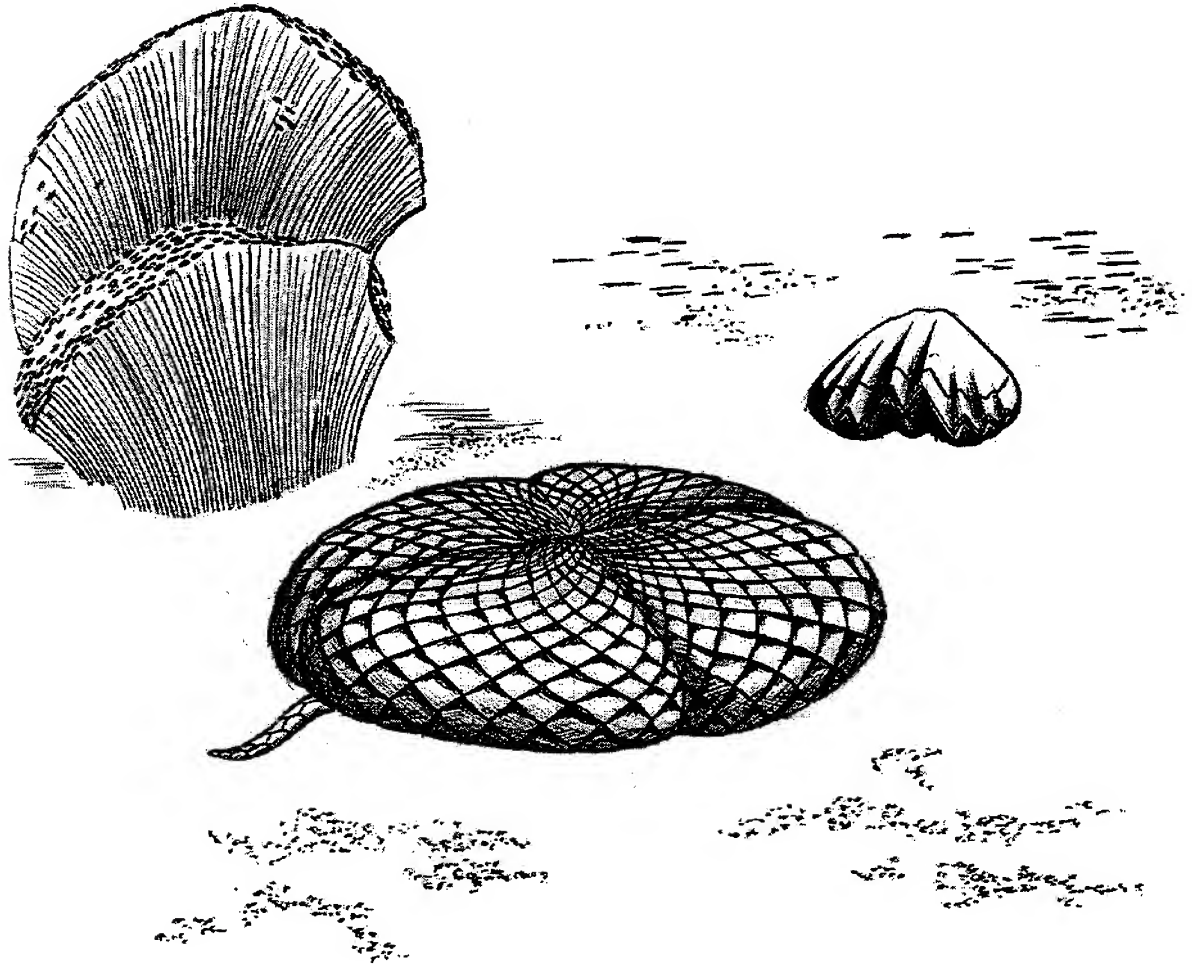
Found *Ophiocistia* was enclosed into the quartzite mould of 130 x 225 MM size. Biofacies analyses or the peculiarities of disposition of *Augustina winteri* in the mould and the characteristics of the mould let us make some findings both of possible ways of life of fossil Echinodermata and undamaged state of the windfall.

Most probably it is possible to state that *Augustina winteri* lived on the shallow shelf lower the underwater built-up terrace where the streams grow weak making sand "saucer" among firm or clay soil. Investigated *Ophiocistia* lived in such a "saucer" the form of which was saved by the quartzite mould appeared by metamorphization (change) of quartz sand grains into rock. Like nowadays living representatives of sea-urchins *Augustina winteri* lived into the upper layer of the soil getting out of it only in case of changing its usual living conditions. With the current of water *Ophiocistia* received plankton through the special passage the track of which is seen in the mould. For catching plankton *Ophiocistia* used a pair of highly developed ambulacral tubes having external skeleton. To our regret they are seen only in fragments in the fossil condition. It was finding larger prey which shared econiche with *Ophiocistia* by slowly moving in the soil and breaking hard shells by teeth of Aristotle lantern. It is easy to imagine the strength of jaws knowing that the material covering each tooth (it is saved in the fossil condition turned into opal) has the thickness more than 1 MM. Besides that there were found wreckage of brachiopod *Brachythyrina* sp. near the mouth of *Ophiocistia* proving our conclusions.

Making deduction out of above mentioned we concluded that *Augustina winteri* was buried in living condition due to which fact there is undamaged state of her fossilized remains. If *Ophiocistia* died before burial the lime plates composing it would be seen separately, not in the form of the whole shell as they had joining of muscular or other tissue. Most probably sand "saucer" in which *Augustina winteri* lived was covered by landslide of muscular tissue and Echinodermata died not being able to get out. Thanks to this sad event we have an excellent specimen for studying.

Picture 1

**Expected appearance of *Augustina winteri* and associate fauna
(corallite *Chaetetes* and brachiopod *Brachythyrina*)**



V. Morphological structure and peculiarities of oral side of *Augustina winteri*

Thanks to undamaged state fossil *Ophiocistia* remained the main part of its morphological structure. The main peculiarity of *Augustina winteri* is a pronounced radial-beam symmetry L₈P. This quality is an important taxonomic feature as the most part of Pelmatozoa Echinodermata have the radial-beam symmetry L₅P. This quality of fossil *Ophiocistia* was taken from the following details of its structure:

- Mouth of *Augustina winteri* consists of Aristotle lantern which looks like a pyramid out of eight dental plates. The length of each dental plate is 12–14 MM.
- There is perignathic girdle around the mouth. On the perignathic girdle there are pore-pairs for tube-feet near the bottom of the dental plates. The “foot- parts” of the pore-pairs for tube-feet are seen behind the perignathic girdle till the end of the oral side of *Ophiocistia*. They divide this side into 8 ambulacral zones and 8 interambulacral zones. This fact proves our presupposition of radial-beam symmetry L₈P of *Augustina winteri*.
- Besides the ends of oral side represent not a smooth round or oral but shaped fans in the form of 4 smooth fans. These cuts couldn't be possible in case of other symmetry.

The other peculiarities of the given organism are:

- Perignathic girdle consists of chess order situated calcium plates having considerable angle of inclination regarding horizontal level. The angle of inclination of these plates is so large as they look like a number of inclined hollows submerged into the surface of oral side for 2- 3 MM.
- The pore-pairs for tube-feet are situated between the inclined hollows of perignathic girdle. These pore-pairs are also seen on the ambulacral zones looking like the “foot-tracks” situated with the interval of 1 MM. The diameter of them is also 1 MM.
- The ambulacral zones have special anatomic peculiarity – they are not situated in one level with interambulacral zones but graphically overhanged above the last. These overhangs can be up to 5 MM. To our regret this peculiarity of ambulacral zones was the reason of their damage during the mechanical erosion of fossil *Ophiocistia*. However the situation of ambulacral zones is seen by the pore-pairs for tube-feet as they are heavily extended into the oral disk. The difference in the construction of *Ophiocistia Augustina winteri* comparing with sea-urchins is in the way the ambulacral zones look like – in the case of *Augustina winteri* we can see ambulacral zone like massive calcium bars while sea-urchins have the ambulacral zones in the form of 2 rows of plates.

Interambulacral zones are much wider comparing with ambulacral zones. Interambulacral zones consist of 3 rows of large (up to 5 MM) calcium plates deposited by it's ends on each others like tile. In each of these plates there are seen a lot of small holes one of which is the largest and is situated in the center. Probably these holes served for maintenance of osmosis pressure of water in the organism and appeared during the process of growing of calcium plates. Some of the scientists thinks that these holes are the sex pores but this point of view is not current opinion.

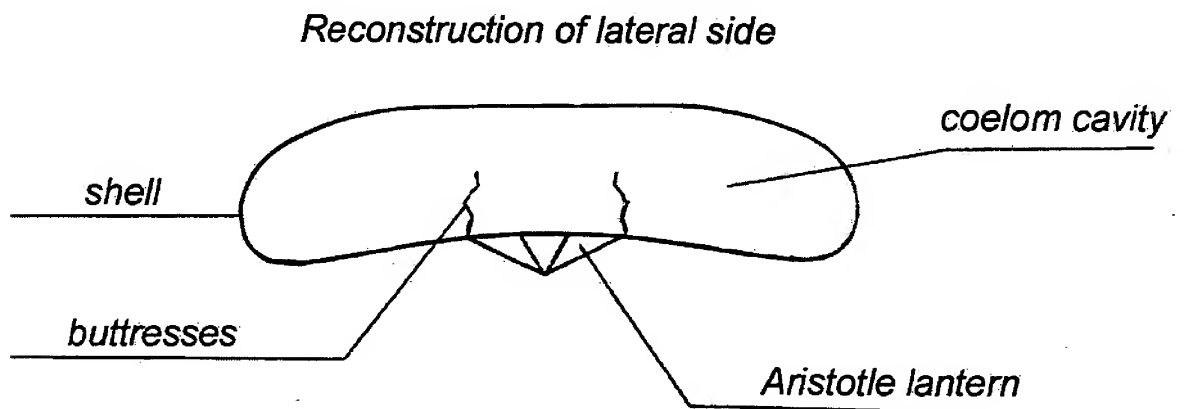
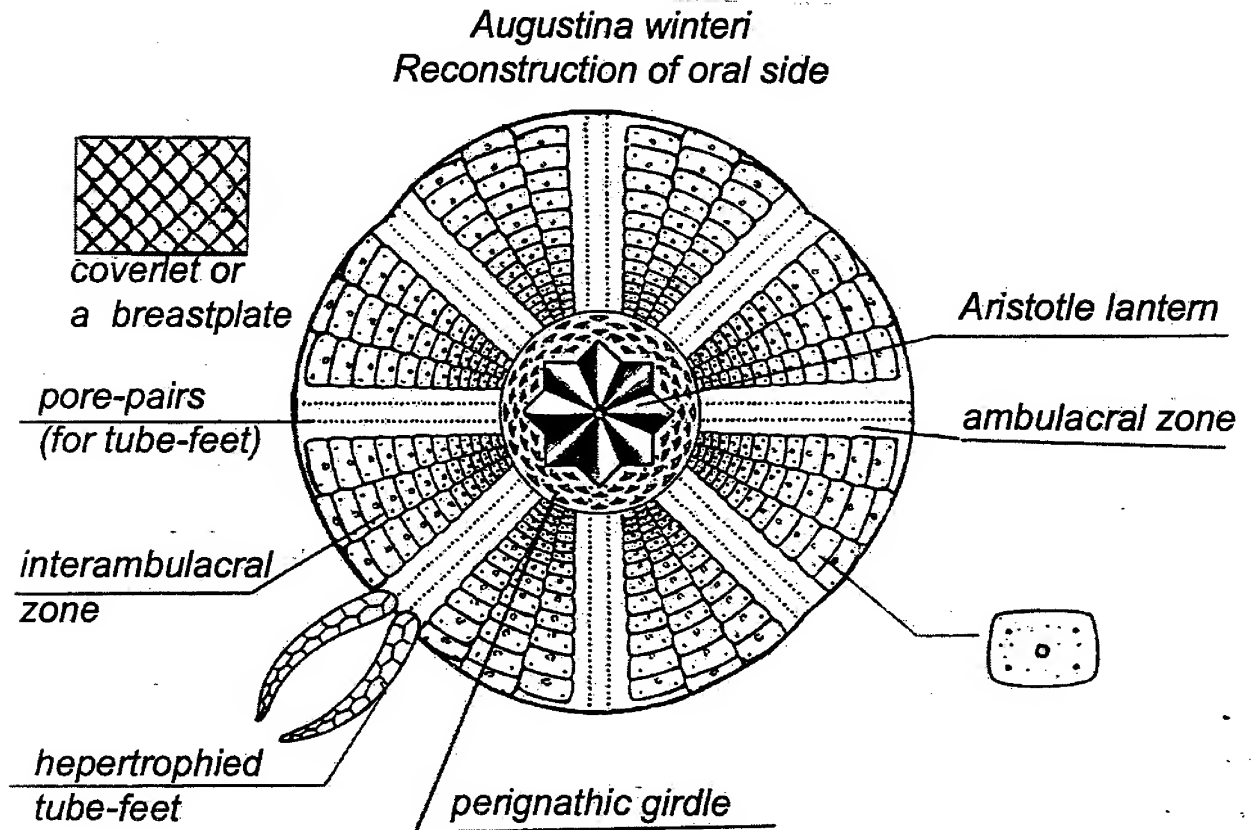
One of the interesting morphological details of *Augustina winteri* is the remaining of the coverlet or a breastplate protecting the structures of oral excluding Aristotle lantern. This coverlet was reduced during *Augustina winteri* life. Probably, like class Ophiuroidea *Augustina winteri* gradually lost its coverlet during some period of time due to its hard abrasion as it crawled on the bottom. The degree of abrasion of coverlet indicates the age of organism (like in the case of class Ophiuroidea). The less size has the remaining part of the coverlet the older is the organism. Biofacies analyses opened 2 fragments of such coverlet. The coverlet consists of a large number of little squared scales situated in the chess order. These scales have no holes as they consist not of calcium being the blistering on the skin like in many representatives of Ophiuroidea class.

On the right side of the photo you can see the fragments of blistering quite distinctly. The holes for foot tubes are twice smaller on the coverlet comparing with the ambulacral zone. On this coverlet the pore-pairs are also seen but they are not between the scales transfixing them through.

Thanks to the fact that the quartzite mould was broken during erosion the lateral side is seen. Due to it the buttresses are observable. In Ophiocistia *Augustina winteri* the upper and lower surface of the test are connected by an often extensive series of buttresses and pillars. These are purely structural and reinforce the test. These buttresses are shown on the picture with reconstruction of lateral side.

The main distinction of class Ophiocistoidea as you know from the other classes of free living Echinodermata is that they have one or several pairs of hypertrophied tube- feet. The other found before Ophiocistia similar pairs of tube-feet had the length up to $\frac{1}{2}$ of diameter of oral disk of the organism. They also had surface skeletonization by calcium plates. The similar construction had Ophiocistia *Eucladia jonstoni* reconstructed by Russian scientist Fedotov. Hepertrophied tube-feet helped in spatial motion and in nutrition. Unfortunately erosion rubbed sore hypertrophied tube- feet of *Augustina winteri*. The only remaining part (3 calcium plates) forms a straight line with the oral disk of Ophiocistia. It gives us grounds to suggest that *Augustina winteri* also like other Ophiocistia had this interesting peculiarity. Due to this reason the hypertrophied tube-feet of *Augustina*

winteri are shown in the picture with reconstruction admittedly (it is the only anatomic detail which is shown in the picture conceivably).



VI. The main deductions

After studying all these morphological details of construction of the found Ophiocistia we can make the following deductions:

- all described before reports that *Augustina winteri* has significant distinctions comparing with the other described in the literature *Ophiocistia Eucladia jonstoni*, *Sollasina*, *Volchovia*.
- First of all the symmetry of *Augustina winteri* is L8P which confirms the sibling connection of class Ophiocistoidea and class Ophiuroidea. One

more detail confirms this connection – coverlet of living now Ophiuroidea was the same as *Augustina winteri* had.

- Many details of construction of oral side of *Augustina winteri* agree with the regular old sea-urchins like in the case of *Archaeocidaris wortheni* (Cidaroidea) – the presence of perignathic girdle around Aristotle lantern; the construction of plates in interambulacral zone is also very much alike (the form of the plates and the sizes of them).
- Extremely important point of investigation was dating of *Augustina winteri*: it lived in the middle Carbon 320–330 million year ago (according to the results of radiocarbon measurements). The dating of *Augustina winteri* clashed with dating of *Archaeocidaris wortheni* (Cidaroidea) which is very interesting!
- Before this windfall it was used to consider Ophiocistoidea as dead-end branch of phylogenetic table. After the investigation of *Augustina winteri* we made diversification of this point of view and came to the conclusion that class Ophiocistoidea is the transitional link between Edrioasteroidea and all free living Echinodermata with the exception of holothurian.
- It is necessary to underline that *Augustina winteri* lived 50 million years after the dating of other Ophiocistoideas.

Most probably the class of Ophiocistoidea died out as $\frac{3}{4}$ of all Echinodermata in the beginning of Perm due to the abrupt change of the climatic regime. We presuppose it due to the fact that *Augustina winteri* lived 50 million years after the dating of other Ophiocistoideas. Besides it had some progressive for evolution of Echinodermata details of construction can be seen now in the orders of Lepidocentroida and Camarodonta.

All above mentioned informs that the investigation of Ophiocistia is a prior task for the phylogenetic table of Echinodermata.

OBITUARY

----- Original Message -----

From: "Jean-Pierre FERAL" <feral@OBS-BANYULS.FR>

To: <ECHINODERM-L@NRM.SE>

Sent: Thursday, June 07, 2001 10:46 AM

Subject: Alain Guille died last monday

Dear Colleagues

Alain Guille died of lung cancer on June 4th 2001, at the age of 64 years, surrounded by his wife and children. For several years, he had made a bold stand against his dangerous illness.

Appointed by Claude Lévi at the Laboratory of Biology of Marine Invertebrates and Malacology in 1973, Alain Guille was nominated deputy director at the Natural History Museum in 1979, and director of the CNRS unit of research # 699 from 1986 to 1988. He was professor at the University Pierre et Marie Curie (Paris 6) and director of the Laboratory Arago of Banyuls-sur-mer from 1989 to 1999. His entire scientific career was devoted to the complementary aspects of oceanographic and biological research on the littoral and offshore benthic life of marine animals. He was recognized world wide as a specialist in systematics of echinoderms (Ophiuroids).

The funeral will take place on Saturday June 9th, at 9 a.m., at the crematorium of the Père Lachaise cemetery in Paris.

Jean-Pierre Féral

Jean-Pierre FERAL

Observatoire Oceanologique

UMR CNRS 7628, Modeles en biologie cellulaire et evolutive

BP 44, F-66651 Banyuls-sur-mer cedex, France

tel +33 (0)4 6888 7318

fax +33 (0)4 6888 7383

mailto:feral@obs-banyuls.fr

URL: <http://www.obs-banyuls.fr>

Guille, A. 1965. Exploration en soucoupe plongeante Cousteau de l'entrée nord-est de la Baie de Rosas (Espagne). Bull. Inst. Océanogr. Monaco No. 1357 : 1-12, 3 pls.

Guille, A. 1965. Observations faites en soucoupe plongeante à la limite inférieure d'un fond à Ophiothrix quinquemaculata D. Ch. au large de la côte du Roussillon. Rapp. P.-v. Réunion. Commn int. Explor. Scient. Mer Méditerr. 18 : 115-118.

- Guille, A.** 1965. Sur la présence d' *Ophiocomina nigra* (O.F. Müller) dans la région de Banyuls-sur-Mer. Vie Milieu 15: 803-806.
- Guille, A.,** and L. Laubier. 1965. *Synaptiphilus cantacuzenei mixtus* ssp. nov., copépode ectoparasite sur *Oestergrenia digitata* à Banyuls-sur-Mer. Crustaceana 9: 125-136.
- Cherbonnier, G., and **A. Guille.** 1967. Complément à la faune des Echinodermes de la mer de Banyuls. Vie Milieu, 18 (2B): 317-330.
- Cherbonnier, G., and **A. Guille.** 1968. Sur la présence, à Banyuls, de l'holothurie apode *Labidoplax buski* (M'Intosh). Bull. Mus. natn. Hist. Nat. Paris, Sér 2, 39(6) 1967 (1968): 1219-1223.
- Guille, A.,** and J. Soyer. 1968. La faune benthique des substrats meubles de Banyuls-sur-Mer. Premières données qualitatives et quantitatives. Vie Milieu, 19 (2B): 323-360.
- Cherbonnier, G., and **A. Guille.** 1969. Sur une nouvelle holothurie dendrochirote de Méditerranée : *Phyllophorus drachi* nov. sp. Bull. Mus. natn. Hist. Nat. Paris, Sér 2, 40(3) 1968[1969]: 630-633.
- Guille, A.** 1969. Sur la présence d' *Ophiactis savignyi* Müller et Troschel dans la région de Banyuls-sur-mer. Vie et Milieu 19: 497-500.
- Guille, A.,** and J. Soyer. 1970. Bionomie benthique du plateau continental de la côte catalane française. I. Physiographie. Vie Milieu, 21 (1B): 137-148.
- Guille, A.** 1970. Bionomie benthique du plateau continental de la côte catalane française. II. Les communautés de la macrofaune. Vie Milieu, 21 (1B) : 149-280.
- Guille, A.** 1970. Nouvelle signalisation de *Anseropoda lobiancoi* (Ludwig) dans la région de Banyuls-sur-mer. Vie Milieu (A) 21: 505-506.
- Guille, A.** 1971. Bionomie benthique du plateau continental de la côte catalane française. 4. Densités, biomasses et variations saisonnières de la macrofaune. Vie Milieu, 22 (1B): 93- 158.
- Guille, A.** 1971. Bionomie benthique du plateau continental de la côte catalane française. IV. Densités et biomasses du macrobenthos. Vie Milieu, 22 (2B): 315-424.
- Guille, A.** 1971. Bionomie benthique du plateau continental de la côte catalane française. VI. Données autécologiques (macrofaune). Vie Milieu, 22 (3B): 469-527.
- Cherbonnier, G., and **A. Guille.** 1971. Note sur l'holothurie dendrochirote *Phyllophorus granulatus* (Grube). Vie Milieu (A) 22(2); 281-288, illustr.
- Guille, A.,** and J. Soyer. 1971. Contribution à l'étude comparée des biomasses du macrobenthos et du méiobenthos des substrats meubles au large de Banyuls-sur-Mer. II. 3e Symposium européen de Biologie

Marine, Arcachon, suppl. no. 22, Vie Milieu : 15-29.

Cherbonnier, G., and A. Guille. 1972. Redescription et position systématique de l'Ophiure *Ophiosphaera insignis* Brock (Echinodermes). Bull. Mus. Nat. Hist. Nat., Paris, 3 serie., 30 (Zool. 24) : 279-283, 1 fig.

Cherbonnier, G., and A. Guille. 1972. Note présentée par M. Théodore Monod. Sur une espèce actuelle de Crinoïde crétacique de la famille Holopodidae : *Cyathidium foresti* nov. sp. C.R. Acad. Sc. Paris, t. 274: 2193-2196.

Guille, A. 1972. Ophiures nouvelles ou inconnues de Méditerranée: *Amphiura cherbonnieri* sp. nov. et *Amphiura securigera* (Düben et Kören). Bull. Mus. Natn. D'Hist Nat., Paris, 3e sér, no.81, Zoologie 60: 925-933.

Desbroyères, D., A. Guille, and J. Ramos. 1973. Bionomie benthique du plateau continental de la côte catalane espagnole. Vie Milieu (B) 23(2) [1972-1973] : 335-363.

Amouroux, J.-M., and A. Guille. 1973. Premières estimations des biomasses dans l'infralittoral à Banyuls à l'aide d'une suceuse à pompe immergeable. Rapp. P.-v. Réunion. Commn int. Explor. Scient. Mer Méditerr., 21(9): 69-100.

Desbroyères, D., and A. Guille. 1973. La faune benthique de l'Archipel de Kerguelen. Premières données quantitatives. C.R. Hebd. Séanc. Acad. Sci., Paris, 276 D: 633-636.

Guille, A., and J. Soyer. 1974. Bionomie benthique du plateau continental de la côte catalane française. 8. Macrofaune et meiofaune, rapports quantitativs et biocénétiques. Vie Milieu, vol. 24, fasc. 2, sér. B, pp. 301-320.

Cherbonnier, G., and A. Guille. 1974. Echinodermes récoltés aux îles Kerguelen par P. Grua. Comité Natl. Fr. Rech. Antarctiques, 35: 25-44.

Guille, A., and J.-F. Ponge. 1975. Application de l'analyse des correspondances a l'étude des peuplements benthiques de la côte catalane française. Ann. Inst. Océanogr., Paris, 51(2): 223-235.

Guille, A., and J. Soyer. 1976. Prospections bionomiques du plateau continental des Iles Kerguelen Golfe du Morbihan et Golfe des Baleiniers. CNFRA, 39: 49-78.

Cherbonnier, G., and A. Guille. 1976. Sur la présence, à l'île Heard, de l'ophiure *Astrophiura permira* Sladen. Bull. Mus. natn. Hist. Nat. Paris, Sér. 3, No. 351, Zoologie 244 : 17-21.

Guille, A. 1976. Echinodermes de la côte catalane espagnole (Méditerranée). *Amphiura lacazei* nov. sp., ophiure nouvelle de la famille des Amphiuridae. Thalassia Jugoslavica, 12 (1): 165-171.

Guille, A. 1977. Benthic bionomy of the continetal shelf of the Kerguelen Islands: Quantitative data of the echinoderms of the Morbihan Gulf. A select reprint from The Proceedings of the Third SCAR

Symposium on Antarctic Biology. Reprinted from *Adaptations within Antarctic Ecosystems*, pp. 253-262. Copyright 1977 by the Smithsonian Institution. Printed and distributed by Gulf Publishing Company, Book Division, Houston, Texas.

Guille, A. 1977. La Campagne MD04/Benthos du "Marion Dufresne" (14 Février - 23 Mars 1975), Bionomie du plateau continental des Iles Kerguelen, Stations Prospectées et Résultats Préliminaires. CNFRA, 72: 3-40.

Desbruyères, D., and **A. Guille**. Bionomie benthique du plateau continental des Iles Kerguelen. 8. Variations spatiales et temporelles dans le peuplement des vases à spicules. European mar. Biol. Symp., No. 11: 185-196.

Cherbonnier, G., and **A. Guille**. 1978. Faune de Madagascar. 48. Echinodermes : Ophiurides. Muséum national d'Histoire naturelle, Centre National de la Recherche Scientifique (Paris), 272 pages.

Guille, A., and M. Jangoux. 1978. Astérides et ophiurides littorales de la région d'Amboine (Indonésie). Ann. Inst. Océanogr., Paris, 54(1): 47-74.

Guille, A. 1979. *Astrotoma drachi*, nouvelle espèce bathyale d'Ophiuride Gorgonocephalidae des îles Philippines. Vie Milieu, 28 (3A-B) : 437-442.

Guille, A., and P. Lasserre. 1979. Consommation d'oxygène de l'oursin *Abatus cordatus* (Verrill) et activité oxydative de son biotope aux îles Kerguelen. Mémoires Mus. natn. Hist. Nat. Paris (Sci. Terre) 43: 211-219, illustr.

Guille, A. 1980. Echinodermes: Ophiurides. Result. Camp. *MUSORSTOM I*, Philippines (18-28 mars 1976) 91: 413-456, pls 1-9, figs. 1-3.

Guille, A. 1980. Les Ophiures des marges continentales de la région Philippines, Indonésie. Distribution bathymétrique et étagement. In: Jangoux, M. (Ed). Echinoderms present and past. Proceedings of the European Colloquium on Echinoderms, Brussels, September, 1979, Balkema, Rotterdam : 97-105.

Guille, A. 1981. Résultats de campagnes MUSORSTOM. 1. Philippines (18-28 mars 1976). Echinodermes: Ophiurides. Mem. ORSTOM 91:413-456.

Guille, A., and S. Ribes. 1981. Échinodermes associés aux Scléactiniaires d'un récif frangeant de l'île de La Réunion (océan Indien). Bull. Mus. natn. Hist. nat., Paris, 4e sér., 3, section A, no. 1: 73-92.

Marshall, J., **A. Guille**, and M. Roux. 1981. Les types de crinoïdes (echinodermes) du Muséum national d'Histoire naturelle de Paris. Bull. Mus. natn. Hist. Nat. Paris (Zool. Biol. Ecol. anim.), 3(3): 713-729, illustr.

Guille, A. 1982. Echinoderms of the Kerguelen Islands, with new taxonomic, biogeographic and quantitative data on the echinoderm fauna. Records of the Australian Museum 16: 67-87.

- Guille, A.** 1982. A new genus and species of ophiacanthid brittlestar (Echinodermata: Ophiuroidea) from the Kerguelen Islands, with new taxonomic, biogeographic and quantitative data on the Echinoderm fauna. *Austral. Mus. Mem.*, 16: 67-87, 8 figs., 4 tabs.
- Lawrence, J.M., and **A. Guille**. 1982. Numerical and caloric densities of ophiuroids and holothuroids (Echinodermata) from Kerguelen (south Indian Ocean) and Banyuls (Mediterranean Sea). *Echinoderms Proc. Int. Conf.* 1982: 313-317, illustr.
- Lawrence, J.M., and **A. Guille**. 1982. Organic composition of tropical, polar and temperate-water echinoderms. *Comparative Biochem. Physiol. (B)* 72(2): 283-287, illustr.
- Guille, A.**, V.M. Marques, and B. O'Connor. 1983. Présence d'*Amphiura incana* (Ophiuroidea, Echinodermata) le long des côtes nord-est atlantiques. *Cahiers de Biologie Marine*, 24(4): 383-390, illustr.
- Vadon, C., and **A. Guille**. 1984. Les Ophiuridae (Ophiuroidea, Echinodermata) de la campagne MD 32 du "Marion-Dufresne" autour de l'île de La Réunion. *Bull. Mus. natn. Hist. nat., Paris*, 4e serie, section A6: 583-615.
- Guille, A.**, and W.J. Wolff. 1984. Résultats biologiques de l'expédition Snellius. Echinodermata: Ophiuroidea I. *Zoologische Verhandelingen. Rijksmuseum van natuurlijke Historie te Leiden* 213:1-39.
- Vadon, C., C. DeRidder, **A. Guille**, and M. Jangoux. 1984. Les types d'échinides actuels (echinodermes) du Muséum national d'Histoire naturelle de Paris. *Bull. Mus. natn. Hist. nat. Paris (Zool. Biol. Ecol. anim.)* 6(1) (Suppl.): 1-38, illustr.
- Lawrence, J.M., J.B. McClintock, and **A. Guille**. 1984. Organic level and caloric content of eggs of brooding asteroids and an echinoid (Echinodermata) from Kerguelen (south Indian Ocean). *International J. Invert. Reprod. Dev.*, 7(4): 249-257, illustr.
- Guille, A.**, and C. Vadon. 1985. Les ophiures littorales de Nouvelle-Calédonie. *Bull. Mus. natn. Hist. nat., Paris*, 4e sér., 7, section A., no. 1: 61-72.
- Guille, A.**, G. Cherbonnier, J.-P. Féral, C. Vadon, P. Laboute, J.L. Menou, M. Jangoux, C. DeRidder, and D. Meyer. 1985. Echinoderms of the coral reef of New Caledonia. P.157 *in*: Echinodermata. Proceedings of the Fifth International Echinoderm Conference, Galway, September 1984.
- Vadon, C., and **A. Guille**. 1985. The family Ophiuridae in the bathyal zone of the Indian Ocean: origin and biogeography. *Echinoderms Proc. Int. Conf.* 1984: 645-652, illustr.
- Guille, A.**, and C. Vadon. 1986. Ophiuridae de l'océan Indien profond. *Indo-Malayan Zoology*, 3: 167-188.
- Guille, A.**, and C. Vadon. 1986. Les ophiurides. *Faune trop.*, 25: 155-197, illustr.

Guille, A., P. Laboute, and J.-L. Menou. 1986. Handbook of the sea-stars, sea-urchins and related echinoderms of New-Caledonia lagoon, 238 pp.

Guille, A., and C. Vadon. 1986. Ophiuridae l'océan Indien profond Indo-Malayan Zool. 3: 167-188.

Ferrand, J.G., C. Vadon, and **A. Guille.** 1987. Reproduction d'échinodermes collectes lors de la campagne ecomarge. 71, illustr. *In*: Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée. Colloque international d'oceanologie ecosystemes de marges continentales. Perpignan, 23-26 juin 1987. Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée, Monaco: 1-96.

Schatt, P., J.-P. Féral, and **A. Guille.** 1987. Ecologie marine des îles subantarctiques et antarctiques. Incubation, constitution biochimique et valeurs energetiques chez quelques échinodermes subantarctiques. CNFRA (Com Natl Fr Rech Antarct) Publ No. 57, 1987[1988]: 109-118, illustr.

Ferrand, J.G., C. Vadon, D. Doumenc, and **A. Guille.** 1988. The effect of depth on the reproductive cycle of *Brissopsis lyrifera* (Echinoidea, Echinodermata) in the Gulf of Lions, Mediterranean Sea. *Mar Biol* (Berl) 99(3): 387-392, illustr.

Féral, J.-P., J.-G. Ferrand, and **A. Guille.** 1990. Macrobenthic physiological responses to environmental fluctuations: the reproductive cycle and enzymatic polymorphism of a eurybathic sea-urchin on the northwestern Mediterranean continental shelf and slope. *Cont Shelf Res* 10(9-11): 1147-1155, illust.

Guille, A., and de Natividade Albuquerque, M. 1990. Strategies de dispersion et insularite: les ophiures littorales de la chaîne des seamounts Vitoria-Trindade (Bresil); resultats preliminaires. 125-129, illust. *In*: de Ridder, C., P. Dubois, M.-C. Lahaye, and M. Jangoux. (Eds). Echinoderm Research. Proceedings of the second European conference on echinoderms, Brussels, 18-21 September 1989. A.A. Balkema, Rotterdam & Brookfield: I-xi, 1-343.

Natividade Albuquerque, M. and **A. Guille.** 1991. Ophiuroidea (Echinodermata) ao largo do Brasil: Banco dos Abrolhos, cadeia submarine Vitoria-Trindade e plataforma continental adjacente. *Bol Mus Nac Rio J Zool* No. 353: 1-30, illustr.

David, B., **A. Guille,** J.P. Féral, and M. Roux. (eds) 1994. Echinoderms Through Time. Proceedings of the eighth International Echinoderm Conference Dijon/France 6-10 September 1993, 940 pp.

Tyler, P.A., G.L.J. Paterson, M. Sibuet, **A. Guille,** B.J. Murtons, and M. Segonzac. 1995. A new genus of ophiuroid (Echinodermata: Ophiuroidea) from hydrothermal mounds along the mid-atlantic ridge. *J. mar. biol. Ass. U.K.* 75: 977-986.

Guille, A. 1998. Memorial: Gustave Cherbonnier. xxix-xxx, illustr. *In*: Mooi, Rich, and Telford, Malcolm (Eds). Echinoderms: San Francisco. Proceedings of the ninth International Echinoderm Conference, San Francisco, California, USA, 5-9 August 1996. A.A. Balkema, Rotterdam & Brookfield: 1-xxx11, 1-923.